

**An in-depth exploration of women's perspectives on alcohol consumption
during pregnancy**

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Abstract

Background and Aim: Prenatal alcohol consumption can be associated with a range of adverse fetal effects, collectively known as Fetal Alcohol Spectrum Disorders. However, the 'safe' upper limit of prenatal drinking is unknown. Consequently, policy and practice in the UK is unclear. This lack of clarity is compounded by a failure to understand pregnant women's decisions regarding alcohol consumption. This research aims to address this by exploring pregnant women's own understanding of their choices regarding alcohol use.

Methods: A systematic review of qualitative literature concerning women's views about alcohol use in pregnancy and; in-depth interviews with pregnant women to develop an understanding of their alcohol related views and behaviour.

Results and Discussion: Lupton's concept of reproductive citizenship was utilised to illuminate the findings of both strands of work. There was a relative lack of importance of biomedical 'expert' discourses. Health professionals' guidance was frequently unmentioned; professionals either didn't discuss alcohol or delivered advice in a confusing manner. Within the interviews, narratives focussed upon accounts of 'always knowing' how pregnant women should drink. Thus, pregnant self-regulation is more complex than currently understood. Risk narratives were prevalent throughout, but were not communicated in biomedical terms. Rather, they illuminated the wider discourses of reproductive citizenship. The need to feel and be seen as a good mother was universal but how this was expressed varied according to drinking status. Good motherhood was a powerful yet malleable discourse, drinkers were still able to claim the identity of good mothers. Prenatal drinking was contextualised within the context of prior drinking in the interview data but not in the systematic review. The need to contextualise pregnancy focusses on the need to understand pregnancy as part of the life-course and calls into question the fetus-centric approach to public health messages regarding alcohol use in pregnancy.

Dedication

This thesis is dedicated in honourable and loving memory to my Grandfather, Joseph Byrne. Your passionate belief in the power of education lives on and will continue to do so. In many ways I have done this because you were never granted the opportunity.

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was delivered to you. Thank you for making me a mother. I want you to see that achievement comes through hard work and persistence. Always believe in yourselves.

List of abbreviations

FAS: Fetal Alcohol Syndrome

FASD: Fetal Alcohol Spectrum Disorders

USA: United States of America

UK: United Kingdom

SES: Socio-economic status

NICE: National Institute for Health and Care Excellence

RCOG: Royal College of Obstetricians and Gynaecologists

BI: Brief Intervention

NUTH: Newcastle upon Tyne Hospitals NHS Foundation Trust

R&D: Research and Development

NHS: National Health Service

ASBI: Alcohol Screening and Brief Advice

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Chapter 1: Introduction

1.1 Chapter introduction

This thesis presents qualitative research undertaken in order to understand pregnant women's perspectives on their choices regarding alcohol consumption. This chapter explains the background to, and justification for, the research. Specifically, why alcohol use in pregnancy is an area of medical and public health concern will be outlined. The complex aetiology of Fetal Alcohol Spectrum Disorders will then be summarised. The impact of this complex aetiology will be reviewed, specifically in terms of the consequent debate regarding how pregnant women should be advised and the subsequent difficulty in forming cohesive health policies and antenatal care pathways in the UK. The evidence regarding how many women in the UK consume alcohol during pregnancy will then be presented. It will be argued that a critical piece of missing evidence is why pregnant women chose to abstain or drink, thus providing the justification for this study. The specific aim and objectives of this research will then be stated. This chapter concludes with an overview of the thesis.

1.2 Background and area of study

1.2.1 *What is the problem? Fetal Alcohol Spectrum Disorders*

The consumption of alcohol during pregnancy can be associated with a range of permanent deleterious effects upon the developing fetus [1], the most severe of which is known as Fetal Alcohol Syndrome (FAS) and was first formally identified in 1973 [2]. Individuals with FAS display a characteristic patterning of facial dysmorphism, restricted growth and both central nervous system and neurodevelopmental abnormalities [1]. The neurodevelopmental effects can include poor learning and memory skills, impaired spatial functioning, delayed language development and reduced attention span [3]. These are associated with a range of poor outcomes including behavioural problems, impaired emotional development and high levels of psychiatric comorbidity [3, 4]. These outcomes can have a significant impact upon the life course of affected individuals; for example there is evidence to suggest that people with FAS are disproportionately represented within the criminal justice system [5].

Importantly, not all individuals affected by prenatal alcohol use will develop all the features associated with complete FAS [1]. For example, some may have some of neurodevelopmental abnormalities and display subsequent behavioural sequelae but have

no physical effects [6]. For this reason, the umbrella term Fetal Alcohol Spectrum Disorders (FASD) has been developed to encompass the full range of outcomes associated with maternal alcohol consumption [1]. These outcomes include the conditions FAS, partial FAS, Alcohol Related Neurodevelopmental Disorder and Alcohol Related Birth Defects [7]. The reported global prevalence rates of FASD are highly variable; for example Gray et al [8] have summarised the literature to state that within the United States of America (USA) the prevalence is estimated at 0.5 to 2 per 1000 births; in Australia the estimate is 0.6 per 1000 live births and in the Western Cape province of South Africa estimates vary from 68 to 89.2 per 1000 live births [8]. Notably, the Western Cape is a region characterised by historically sustained high levels of alcohol dependence [9]. There are no known prevalence rates within the United Kingdom (UK).

FASD is not only a complicated condition in terms of the range of possible fetal effects, it also has a complex aetiology. Not all fetuses that are exposed to alcohol in comparable levels and patterns of consumption will be affected in the same way [10] because there are also a number of different maternal risk factors implicated in increasing the probability of a child developing FASD [11]. For example, there is evidence to suggest that some genetic and epigenetic factors increase the predisposition towards FASD [12]. Further, increasing maternal age, gravidity (number of pregnancies), parity (number of live births) and maternal nutritional deficiencies are also all associated with an increased risk of producing a child with FASD [11]. In particular, FASD is over-represented in women from socially and economically deprived communities [10, 13]. Clearly, lower socioeconomic status (SES) cannot be a risk factor in itself. Rather, the various risk factors are often associated with deprivation in complicated and variable ways. Gray encapsulates this complexity by referring to this aetiology as a 'causal web' [10]. The strong association with deprivation has led to FASD famously being referred to as 'not an equal opportunity disorder' [14].

There is also uncertainty regarding what levels and patterns of prenatal alcohol consumption are associated with fetal harm. There is evidence of a dose response relationship, with the most severe consequences of prenatal alcohol use (i.e. FAS) a result of frequent and heavy drinking [15]. Further, patterns of binge drinking are associated with a greater degree of fetal damage because they result in higher blood alcohol concentrations [15]. However, critically, it has not been possible to establish what level of maternal alcohol consumption begins to cause fetal damage. A systematic review published in 2007 assessed 46 studies and

found no consistent evidence of harm from low to moderate consumption, which was defined as up to 83 grams of alcohol per week (the equivalent of 10.4 UK units) [16]. However, despite failing to find consistent evidence of fetal harm, the authors firmly stated that conclusions should not be drawn from this regarding the safety of drinking because of the methodological weaknesses in the evidence base. In support of this, they cite the fact that mothers were often asked about prenatal alcohol consumption postnatally thereby introducing the potential for recall bias. Since 2007, the body of research regarding low to moderate maternal drinking has tended to be contradictory and thus the evidence remains inconclusive [17].

1.2.2 Alcohol, antenatal care and advice

Internationally, it could be argued that there has been a general trend towards a precautionary approach when advising pregnant women about alcohol consumption. For instance, the International Alliance for Responsible Drinking has produced a webpage compiling guidelines for 34 geographically diverse countries [18]. Of these, there are only three (Fiji, Italy and the UK) that did not recommend a firm abstinence only message. Within the UK, there has been criticism of what is perceived to be a confusing and conflicting approach to guidelines [19]. Prior to 2007, the Department of Health recommended that pregnant women consume no more than one or two units once or twice a week. In 2007, they altered this to state that pregnant women should not consume alcohol but, if they did so, that they should consume no more than one or two units once or twice a week and never get drunk [20]. Confusingly, whilst this guidance does not fully recommend abstinence, the Department of Health publication 'The Pregnancy Book' appears to advocate for abstinence by stating that FASD is completely preventable [20]. The National Institute for Health and Care Excellence (NICE) also changed its guidance in 2008. The most recent guidance [21] states that no alcohol should be consumed during the first three months of pregnancy because of the possible link to miscarriage, after this no more than one or two units once or twice a week should be consumed. They also say that women should be informed of the increased risk of binge patterns of drinking, defined as more than 7.5 units per drinking occasion. Interestingly, in contrast to the Department of Health, they justify their guidance by stating that:

'although there is uncertainty regarding safe levels of alcohol consumption in pregnancy, at this low level there is no evidence of harm to the unborn baby' (page 18) [21]

The guidance published by the Royal College of Obstetricians and Gynaecologists (RCOG) mirrors that of NICE in terms of the timing and amount of alcohol that it is permissible to consume [22]. However, the justification provided is contradictory, stating both that the only way to completely avoid harm is to abstain and that there is no evidence that harm will arise from low levels of consumption. In contrast, the Royal College of Midwives and the Scottish Chief Medical Officer recommend abstinence for women who are pregnant and those trying to conceive [23, 24].

It can, therefore, be argued that in the UK the lack of definitive evidence regarding what level of alcohol consumption in pregnancy is harmful has made it hard for policy makers to formulate recommendations. This difficulty is reinforced by debates in the wider medical and academic community. For some, the lack of certainty in the evidence base and the potential for pregnant women to misinterpret what is meant by one to two units means that advising women to abstain during pregnancy is viewed as the only true way to ensure that the fetus is not placed at risk [25, 26]. In contrast, Lowe and Lee [27] draw heavily on the fact that the Department of Health's 2007 policy change was made in the light of no new evidence regarding the potential harm of low to moderate levels of alcohol use. They argue that the new policy is thus implicated in a trend towards an absolutist approach towards risk avoidance by policy makers, which steps away from the ability to accept and cope with risk uncertainty:

'Policy makers have decided that it is best to circumvent uncertainty associated with evidence and simply associate any alcohol consumption with harm. This policy sets out a new approach to risk based on seeking to make uncertainty certain ... uncertainty itself has been redefined as a justification for advising maximum caution' (page 306) [27]

There are also those who argue that an abstinence only message does not respect the autonomy of pregnant women [28], nor does it grant them the information necessary to make an informed choice about their own pregnancy [29].

To add further confusion to what pregnant women should be told regarding alcohol use, it is also unclear what happens during the antenatal care of those women who do continue to drink in pregnancy in the UK. Typically, all pregnant women are asked about their alcohol

consumption during their first appointment with their community midwife, which is commonly known as the booking appointment and routinely takes place during the first trimester (three months) of pregnancy [30]. For those women who report problematic use of alcohol, it is recommended that they be cared for by specialist, multi-disciplinary health care professionals [31]. However, in England and Wales what happens to those women who continue to drink in pregnancy, but not at levels that warrant specialist care, is unclear. In contrast, in Scotland it is routine that women who admit to drinking at more than the recommended 'safe' limit of one to two units undergo a Brief Intervention (BI) delivered by their community midwife [24]. BI is based in social-cognitive theory [32] and, whilst precise provision is variable, they are defined by their delivery by non-specialist health care professionals and are aimed at those people who are not seeking help for their alcohol use [32]. However, there is no conclusive evidence regarding the effectiveness of BI in the antenatal care setting [33, 34]. Doi et al [35] have recently published a realist evaluation of the antenatal BI programme in Scotland, which aimed to ascertain how and under what circumstances the programme worked. Their results were mixed, finding that the programme offered the opportunity for midwives to talk through unit estimation with pregnant women and thus enabled women who still wished to drink to make an informed decision. In contrast, they also found that women reported not trusting their midwife enough at the first appointment to feel comfortable disclosing alcohol use. Also, midwives reported delivering BI so infrequently that they felt they quickly became de-skilled [35].

1.2.3 How many women in the UK drink in pregnancy?

From the outline above it is clear that alcohol use in pregnancy is a very complex public health issue. It has also been stated that, within the UK, prevalence rates of FASD are unknown. Therefore, the only measure currently available to attempt to understand how this complexity affects pregnant women themselves is to look at the decisions pregnant women make regarding alcohol use, i.e. the prevalence figures for drinking in pregnancy. On a national scale, there have been two surveys performed which provide this data, the 2010 Infant Feeding Survey [36] and the 2011 General Lifestyle Survey [37]. As a whole, the body of evidence suggests that while many women do abstain in pregnancy there remains a large proportion that continue to drink.

The Infant Feeding Survey [36] is produced every five years with the primary aim of monitoring breastfeeding rates. However it has also been used to ascertain the rates of women who drink during pregnancy and assess how drinking behaviour changes due to pregnancy recognition. This survey took a nationally representative sample of 30,760 women who had given birth between August to October 2010. There were three stages to the survey, with questionnaires sent to these women six weeks after birth, when babies were between four to six months old and when they were between eight to 10 months old. The data regarding alcohol consumption in pregnancy were collected at the first survey, when 15,724 (51%) of mothers responded. This survey found that of the women who drank prior to pregnancy, 49% abstained in pregnancy, 46% continued to drink but at a reduced level and two percent reported either not changing or increasing their consumption. The demographic data also showed a strong trend in drinking rates according to SES; only 43% of women in managerial professions abstained in pregnancy compared to 59% of women who never worked. Further, older women were more likely to drink; 66% of those younger than 20 abstained compared to 38% of those aged 35 or older. However, as these data were collected at six weeks postpartum there is the potential for recall bias. The 2011 General Lifestyle Survey [37] sampled 11,381 addresses according to a probability, stratified two stage sample design to ensure population representativeness. The response rate was 72% (n=7,960 households) and 15,000 adults aged 16 or over completed survey interviews. The questions in this survey were limited to drinking behaviour in the week prior to the interview, therefore these data can give no indication regarding prevalence of consumption throughout pregnancy. However, unlike the Infant Feeding Survey [36], it can give some indication of the pattern of drinking during pregnancy regarding levels and frequency of consumption. In the previous week, 78% of pregnant women did not drink at all, 12% drank on one day, four percent on two days and five percent drank on more than two days. Pregnant women were also asked about their heaviest drinking day in the past week; 78% reported no alcohol consumption in the previous week, 12% reported consumption of no more than two units and nine percent reported consuming more than two units in the previous week.

Additionally, a smaller scale study by Nykjaer et al [38] aimed to investigate the association between maternal alcohol consumption and gestational age at birth and birth weight. As part of this they prospectively gathered data about drinking in pregnancy from pregnant

women classed as low-risk who were aged between 18 and 45 and were attending for antenatal care within Leeds Teaching Hospitals Trust between 2003 and 2006. Alcohol intake was assessed at three different time points: (1) 12- 18 weeks gestation (to ascertain use at four weeks prior to conception to 12 weeks gestation); (2) 28 weeks gestation (weeks 13-28 of gestation) and; (3) postpartum (weeks 29 to 40). Participants were asked how often they drank and what type of alcohol they consumed; these data were then converted into an estimate of weekly units consumed. Prevalence of drinking was highest in the first trimester and then sequentially dropped with each subsequent trimester. Twenty one percent of women in the first trimester abstained, increasing to 36.7% and 51.2% respectively. Interestingly, the number of women drinking more than two units per week did not show the same sequential decrease with stage of pregnancy; 73.6 % of women in the first trimester consumed at this level, compared to 28.3% in the second and 27.6% in the third. However, the relatively high numbers in the first trimester should arguably be treated with caution as it is not clear if the questions specified consumption post pregnancy recognition. Further, there was a reasonable rate of study attrition. Of the 1264 women eligible, 91% completed the questions about alcohol intake before pregnancy, 90% about first trimester, 66% during second trimester and 30% for the third trimester. The authors did not provide any demographic data regarding those lost to follow up and thus the potential for bias cannot be eliminated.

1.2.4 Why and how do pregnant women in the UK make their decisions regarding alcohol consumption? The justification for this research.

The evidence outlined above shows that it is possible to make generalisations about what decisions pregnant women make regarding alcohol consumption. Most pregnant women appear to abstain but a significant proportion do continue to drink, albeit moderately. However, critically, there has been a failure to assess why pregnant women in the UK make the decisions that they do. In an area of scientific uncertainty, academic debate and conflicting and unclear policy and practice; how do pregnant women decide whether they should drink or not? What sources of information do they draw upon to make their decision? This research was designed and conducted to address this knowledge gap.

1.3 Aim and Objectives

This research aims to explore pregnant women's understanding of their drinking behaviour.

In order to achieve this aim, the following specific research objectives were set:

1. To conduct a systematic review of qualitative research concerning alcohol use in pregnancy
2. To conduct in-depth qualitative interviews with pregnant women to develop an understanding of their alcohol related behaviour in their own pregnancy.
3. To bring together the findings from the interviews and systematic review, together with appropriate sociological theory, to meet the overall aim of the research and to develop a richer understanding of alcohol use in pregnancy.

1.4 Plan / overview of thesis

The purpose of this chapter has been to provide the background and justification for this research. The remaining thesis is divided into six chapters. The content of each of these chapters is outlined below:

Chapter 2: explains the philosophical underpinnings of the study, with specific focus on the implications for the research. The theoretical positioning of the research is also explained.

Chapter 3: presents and justifies the overall study design, in particular the order in which the interviews were performed in relation to the systematic review. The methodological approach to both the conduct of the interviews and the analysis of the data emerging from the interviews is explained as well as the specific methods employed. This chapter concludes with a summary of the participant demographics and a reflexive account of the researcher's positioning throughout the interviews and analysis.

Chapter 4: details the results of the thematic analysis of the interviews.

Chapter 5: outlines the methodological approach to and the specific methods employed in conducting the systematic review of qualitative literature.

Chapter 6: concerns the results of the systematic review, in particular the number of papers identified at each stage of the review are detailed, the findings of the included studies are summarised and the narrative synthesis of the findings is presented.

Chapter 7: integrates all the elements of this thesis in a discussion of how the theory, interviews and systematic review address the overall aim of the research, to explore

pregnant women's understanding of their alcohol use in pregnancy. The strengths and limitations of the research are acknowledged and the thesis concludes by drawing some recommendations for policy, practice and future research.

Chapter 2: Social Constructionism and Reproductive Citizenship: The philosophical and theoretical positioning of this research.

2.1 Chapter Introduction

Within this chapter the underlying philosophical foundation of this research, social constructionism, and the overarching theoretical framework, reproductive citizenship, are explained. Social constructionism has been utilised in an epistemological sense, influencing how the data presented within this thesis are interpreted. For the purposes of this thesis, reproductive citizenship is interpreted as it has emerged in the work of Dr Amy Salmon and Professor Deborah Lupton, an over-arching theoretical hook that seeks to understand pregnancy as it is experienced in Western, neo-liberal societies. Reproductive citizenship is a recent theoretical development and this thesis represents what is, to the best of my knowledge, the first application to empirical data in the UK.

Specifically within this chapter, the meaning of social constructionism and its impact upon medical sociology will be briefly explained. The implications of a social constructionist approach for this research will be outlined. Reproductive citizenship will then be explained and I will examine how it has emerged within the literature. The key concepts of reproductive citizenship will be explored and interpreted. Finally, the rationale for the choice of reproductive citizenship as an appropriate theoretical positioning of this research will be given.

2.2 Social constructionism: the research philosophy underpinning this research

2.2.1 What is social constructionism?

Social constructionism is defined by Crotty as the view that:

'all knowledge, and therefore all meaningful reality as such, is contingent upon human practices, being constructed in and out of interaction between human beings and their world, and developed and transmitted within an essentially social context' (page 42) [39].

Thus, the fundamental point to social constructionism is the understanding of knowledge and meaning as socially constructed. These constructions are generated by the constant interactions between people and the cultural environment / processes in which we co-exist. The social world is ordered and understood via these constructions and the language used to convey them. Thus, social constructionists often claim that there is no meaningful reality

beyond language [39, 40]. This knowledge is not generated in a vacuum, rather we are born into a world in which meaning already exists and we engage with this preconceived knowledge, serving to shape how we understand the world and what we understand as 'taken for granted' ways of being [40]. By accepting this view of knowledge generation, social constructionism forces us to be critical of the 'taken for granted'. No one way of understanding is any more valid than any other, they are all socially generated constructions. There is no 'truth', only construction. That we accept one way of understanding to be right, or logical, or natural does not make it so.

Social constructionist approaches have made an important contribution to medical sociology, focussing not just on medical practice but on critiquing the generation of medical knowledge [41-43]. By focussing on the ways in which knowledge is generated, social constructionism has been able to illuminate how disease categories have been constructed by medical science (as opposed to 'discovered' by it) and, critically, how these constructions emerge from social processes. Conrad and Barker [43] argue that the impact of social constructionism upon medical sociology can be organised into three key areas. Firstly, social constructionism has illuminated how some illnesses are imbued with cultural meaning that should be understood as arising from social and not biological processes and which can lead to stigma (e.g. HIV diagnosis). Secondly, the experience of illness is also socially constructed and people who experience illness should not be understood as passive actors. They can actively engage with their illness and construct their lives around it. Thirdly, the generation of medical knowledge can serve to support existing social systems of inequality. Nettleton illustrates this conceptualisation of medicine with the example of women in the nineteenth century who were diagnosed with hysteria as a consequence of proclaiming their desire to further their education [42]. In summary, social constructionism has shown that medicine should be viewed as a system that is not objectively 'free', rather it operates within societal structures [41].

2.2.2 What are the implications for social constructionism within this research?

Admittedly, this is a brief summary of what is a complex and frequently non-uniform research philosophy [40, 44]. However, the focus of this chapter is not to give a comprehensive and in-depth explanation of social constructionism. Rather, it is to serve as an explanation of the implications that a social constructionist approach holds for this

research. For this reason, the key issue of realism versus relativism within social constructionism will now be discussed. Realism is defined as the belief that an external reality exists independently of our knowledge or understanding of it [45]. In contrast, relativism posits that no external reality can exist independently of our understanding [45]. As social constructionism is defined by the belief that all meaningful reality is socially constructed [39], it would seem logical to assume that it is aligned with a relativist positioning. Indeed, a strongly relativist position has been the root of much of the critique of social constructionism as it has been argued that it can lead to a form of intellectual nihilism [41]. If there is no reality outside of construction and if all interpretations are equally valid than how can anyone working under a social constructionist approach make claims to legitimate knowledge?

This is a significant stumbling block in working within a social constructionist perspective. It is, however, surmountable when taking a more careful consideration to the application of social constructionism as an ontology or as an epistemology [40]. Ontology concerns itself with the nature of reality, epistemology focuses on what can be known about the world [45]. In summary, social constructionism should not be understood as taking an ontological position, i.e. making claims about the existence of reality. Rather, it is best conceptualised as making epistemological claims about what it is possible for us to know. Thus, Edley [44] argues that when social constructionists claim that all meaningful reality is constructed they are making an epistemological statement and not an ontological one. He states that:

'it is from an epistemic point of view that that we can see language operating as the medium through which we come to understand or know the world. This is because, epistemologically speaking, reality cannot exist outside of the discourse, waiting for fair representation. Instead it is the product of discourse, both the subject and the result of what talk is about' (page 437) [44]

Thus, it is not that there is no reality beyond discourse but that this reality can never be accessed. Therefore, an object only exists as that object because of the cultural language that we use to ascribe meaning to it, but this does not mean that the object is not real [40].

It is in this epistemological conceptualisation that the relevance of social constructionism as the philosophical grounding of this research can be seen. As Burr [40] argues, the importance of social constructionism does not lie in an allegiance with a particular methodology or method but rather in how the data should be interpreted. Firstly, this

research provides only one possible interpretation of the research question and makes no claims to an absolute 'truth'. Further, in accordance with the central tenet of social constructionism, the findings of this research should be understood to be a co-construction, emerging from the interaction between myself as the researcher, the research participants, the input of supervisors and other academics, the related literature and relevant sociological theory. Finally, the concept of the researcher as objective and value free is impossible because we are all embedded within our social structures and therefore enter the research with personal perspectives. For these reasons, the importance of researcher reflexivity within the research process is heightened. Researcher reflexivity is understood to mean the acknowledgement of the researcher's personal position and values relevant to the conduct of the research [40].

2.3 Reproductive citizenship: the theoretical positioning of this research

2.3.1 *What is reproductive citizenship?*

Drawing on Foucauldian concepts of governmentality, neo-liberalism is understood as a system of practices which enables the governance of individuals from a distance [46]. In neo-liberal societies the power of the state is primarily enacted not through systems of coercion but rather in persuasion. The institutions and agencies of Government are diverse and create a complex and multi-directional web of discourses which encourage individuals to willingly serve the interests of the state. This 'willingness to serve' is termed as self-governance and is the mechanism by which the diverse, diffuse system of neo-liberal governance is able to operate. Governmental imperatives become part of everyday life to such an extent that they become key to how citizens understand themselves [47]. Thus, neo-liberal systems of governance rely upon the construction of the 'self' that is capable and willing to take care of oneself (for example in reference to health, finances etc.) and the concomitant internalising of this construction by individuals [48]. People constitute their own subjectivity and govern their actions in relation to the imperatives of the state [49].

Drawing upon feminist and disability theory, Dr Amy Salmon has written extensively about the development of FASD prevention campaigns in Aboriginal communities in Canada [50-52]. It is in the most recent of these publications that she utilised neo-liberal ideologies of citizenship and mothering to develop the concept of the reproductive citizen [50]. She argues that this specific form of citizenship emerges from the more general concept of neo-

liberal citizenship, outlined above [52]. Salmon then contends that the requirements of citizenship are also seen through the demands of neo-liberal ideologies of good mothering, which argue that *'a good mother is self-sacrificing, self-disciplined, morally irreproachable and capable of meeting the needs of her family without assistance from the state'* (page 167) [50]. Thus, in order to comply with the demands of neo-liberal citizenship in general and good motherhood specifically, pregnant women and mothers must act as effective 'reproductive citizens' by producing healthy babies and children. It is assumed that these healthy babies will then grow into healthy adults who are themselves capable of complying with the demands of neo-liberal citizenship.

Salmon uses this understanding of reproductive citizenship to argue that Canadian Aboriginal women giving birth to FASD affected children are effectively being forced to 'fail' as reproductive citizens on two counts: (1) by the production of a disabled child that will need continual and expensive state support for the duration of their lives and; (2) by the frequent need to remove themselves from the productive economic workforce to provide the care required for their disabled child [50]. Consequently, Salmon's work is instrumental in both the initial development of reproductive citizenship as a concept and also utilising this concept to illuminate how public health campaigns regarding FASD prevention can serve to disenfranchise pregnant women and thus enhance health inequalities within the specific population that her research is based.

However, in order to understand the use of reproductive citizenship as the theoretical positioning of this thesis it is necessary to also draw upon four key publications by Professor Deborah Lupton [53-56]. 'Risk and the ontology of pregnant embodiment' [53], pre-dates Salmon's work and does not employ reproductive citizenship as a named concept. However, in discussing *'the ontology of the pregnant body as it is constructed and experienced through the discourses, knowledges and strategies of risk.'* (page 61) this publication is highly relevant. The remaining three publications referenced [54-56] have all utilised the idea of the reproductive citizen as initiated by Salmon and have developed the concept. Lupton writes that:

'at the end of the twentieth century the pregnant woman is surrounded by a complex network of discourses and practices directed at the surveillance and regulation of her body. No longer a single body, but one harbouring the potentiality

of another human, the more obviously pregnant a woman becomes, the more she is rendered the subject of others' appraisal and advice.' (page 59 – 60) [53].

Thus, within this thesis, reproductive citizenship is construed as an umbrella theoretical framework, which aims to bring together and critique the varying medical and societal discourses that are understood to affect the embodied experience of pregnancy in modern, neo-liberal societies. In essence, reproductive citizenship seeks to understand what it means to be pregnant and what influences pregnant women's behaviour within this societal context. However, Lupton's writings do not strictly define these 'medical and societal' discourses, and in each publication there is differing emphasis placed upon different ideas. Therefore, this chapter seeks to interpret and develop reproductive citizenship as a theoretical framework that is unique to this thesis. Lupton's writings serve as the framework and other relevant literature is drawn upon to expound the framework.

2.3.2 *Pregnancy in neo-liberal societies and the impetus for self-regulation*

Neo-liberal governance is inextricably linked to the discourses of public health and their focus of self-improvement to achieve improved health [47, 57]. The interests of the state are served by improving our health and wellbeing because healthy citizens are understood to be economically productive citizens. As Petersen and Lupton note, the messages by which it is purported that good health can be obtained and secured, e.g. exercise and diet restrictions, have become inextricably linked to socially desirable valued characteristics such as self-control and discipline [47].

Reproductive citizenship situates the experience of pregnancy firmly within the lens of neo-liberal self-governance. As previously stated, the aim of reproductive citizenship as an 'umbrella' theoretical stance is to bring together and critique the wider discourses affecting the experience of pregnancy. However, the power of these discourses is entirely invested in the desire of pregnant women to conform to them, to prove themselves to be the ideal self-regulating neo-liberal citizens [58]. Lupton writes that:

'constraints on women's behaviour, however, are not simply exerted from above. For the large part, women voluntarily discipline their bodies and regulate their own behaviours in the quest to create healthy and developmentally normal infants. They also police the actions of the other mothers with whom they interact. They are, therefore, both the subject of surveillance (from other mothers, medical professionals, friends and family members who regularly assess their efforts to

promote and protect the health and wellbeing of their infants) and the instigators of surveillance over their infants and other mothers' (page 649) [56].

2.3.3 The role of the 'expert' in reproductive citizenship

Lupton again draws upon ideas of neo-liberal governance to argue that expert biomedical forms of knowledge are predominant within reproductive citizenship. Lupton highlights the moral connotations of the idea that it is only through reliance on this form of knowledge that successful pregnancy can be achieved [55]. To understand this, it is necessary to understand pregnancy as a medicalised phenomenon and in particular as a mechanism of surveillance medicine. Surveillance medicine is understood as the *'application of surveillance technologies to individuals and populations as a central tool in the management of health through risk assessments'*(page 16) [59]. The rise of this form of medicine has transformed the way that health and illness are constructed. By monitoring whole populations and emphasising the importance of enacting behaviours to reduce the probability of future illness, surveillance medicine enacts everyone as a patient and normal aspects of life become problematised [60]. Armstrong argues that under surveillance medicine *'illness becomes a point of perpetual becoming'* (page 402) [60]. Thus, people are subjected to the medical 'gaze' focussed on the prevention of illness [59]. Again, drawing upon ideas of self-regulation, it is argued that this medical gaze has become so internalised that the people no longer consider themselves capable of knowing their own body and this itself promotes a dominance of expert, medical authority [61].

It is possible to view the medicalisation of pregnancy during the twentieth century as part of the progression of surveillance medicine [59, 61]. As Barker writes:

'casting pregnancy as disease like meant casting the pregnant woman as patient. In Foucauldian terms, the 'gaze' or focus on the subject as patient comes to create the subjective sense of patient....whereas the pregnant women in pre-medical terms organised her experience around the notion of pregnancy as organically difficult, in medical terms her pregnancy would come to be defined around her identity as patient (page 1070) ' [62].

Rothman argues that there is no longer a conceptualisation of a 'healthy' pregnancy, the nearest equivalent being the modern understanding of a 'low risk' pregnancy [61].

Therefore, it is argued that the impact of the medicalisation of pregnancy is one in which women come to view their pregnancy as a time in their lives that is innately unsafe and the medical gaze has become so internalised that it is considered imperative to seek medical

expert advice and monitoring to ensure a good outcome [63]. The dominance of expert advice during pregnancy has been documented by discursive analysis of popular guides to pregnancy available in the UK [64]. One of the key themes identified within these texts was 'preparation for a healthy baby', in which the authors noted that women's narratives revealed that effective preparation meant turning to expert knowledge systems regarding conception and pregnancy and that this reliance created a sense of reassurance [64]. Further, Barker argues that this hegemony of the biomedical knowledge of pregnancy served to undermine other ways of conceptualising pregnancy, i.e. lay knowledge [62].

2.3.4 The creation of the 'fetal citizen'

Lupton asserts that the construction of fetal citizenship is critical to understanding the development of pregnancy as a state of reproductive citizenship. I understand fetal citizenship as a societal understanding of a human fetus (unborn human) as synonymous to a human child, thus I have employed the phrase 'fetus / child'. This 'fetus / child', whilst not yet capable of biological autonomy from its mother, is considered to be morally deserving of autonomy in terms of its rights as a citizen [55, 65].

A major contributor to the development of fetal citizenship is understood to be the increasing use of medical technology upon the fetal body. For example, within the UK routine ultrasound scanning to enable viewing of the fetus *in utero* is a well-established technology, the RCOG initially recommended its use in 1984 and a 2008 survey showed that it was universally offered in England [66]. There is also evidence to suggest that the majority of pregnant women welcome this technology [67]. Additionally, the use of medical technology has enabled increasing survival rates of infants born at early pre-term gestations (stage of pregnancy) [68]. It is argued that these technologies have had a significant impact upon how the fetus is understood and have, therefore, been instrumental in the construction of the 'fetus / child' [54]. For example, the survival of pre-term infants has caused debate concerning the ontological positioning of viability and the ethical acceptability of terminations performed later in gestation [69]. In 2008, Verbeek published a qualitative analysis of obstetric ultrasound imaging [70] and noted that by displaying the fetus as much larger than in it is in reality and as separate from the maternal body, ultrasound intrinsically represents the fetus as a person. Indeed, he noted, the first scan

picture is often given in frames with 'baby's first picture' printed on it. Thus, he and others [65, 71], reject the idea of ultrasound as a morally benign technology.

Evidence from the legal system is also pertinent in understanding the strength of fetal citizenship and its potential implications. For example, within the United States of America (USA) 21 states legislate against prenatal alcohol consumption, 13 of these explicitly on the grounds of child abuse / neglect [72]. Thus, there have been widely publicised cases within the USA where legal action has been taken against pregnant women using substances in order to protect the unborn child from potential health consequences [73]. However, it is also clear from the United Kingdom legal system that the creation of a fetal citizen is still a matter of debate and controversy. In December 2014, the UK courts rejected a claim for compensation from a girl diagnosed with FAS. Critical to the over-ruling was the decision that no crime had been committed by her mother because grievous bodily harm to a fetus was not the same as grievous bodily harm to a person [74]. However, it is contended that this academic debate about the status of a fetus is essentially meaningless in popular consciousness, where the moral understanding of the 'fetus /child' has become commonplace. McCulloch states that:

'very fine and convincing arguments can be made that a fetus is not a person in the way you and I are people. We can draw complex distinctions, and argue that the sounds of fetal heartbeats and 4-D images of fetuses have no intrinsic meaning or value only those we give them...I want to acknowledge that this identity of embryo as tiny person / citizen has already taken root, in practice if not in statute.' (page 19) [65]

Fetal citizenship and the imbued moral understanding of the 'fetus / child' has been central to arguments of fetal rights within anti-abortion campaigns and thus has garnered much critique within the feminist literature [65, 75]. Further, the potential for selective abortions in those instances where a fetus is diagnosed with an abnormality has been the focus of debate concerning which fetuses are considered as citizens and which are not [55, 70]. However, for the purposes of this chapter, discussion will be focussed on the function of fetal citizenship within reproductive citizenship. In other words, what is of most relevance here is the following question posed by McCulloch *'it behoves us to ask what it means to say that from the so-called moment of conception, a woman has a tiny citizen / person inside her?'* (Page 20) [65]. McCulloch then goes on to discuss a 'dystopic road' that entails the continual erosion of a pregnant woman's rights:

'once you have a citizen, a person, living inside you, with all the rights and moral status that citizenship and personhood attract, then the authorities gain the right of entry, and a regulatory role in how that fetal citizen is treated. Taking a competing rights frame, the more constitutional and legal rights apply to the fetus, the less they will be applied to women' (page 20) [65].

Whilst this is arguably an extreme viewpoint, what is critical is the use of the term 'competing rights' because it implies a shift in the conceptualisation of pregnancy as not a time of symbiosis between mother and fetus, but a time in which a pregnant woman is understood to be a container to the growing fetus. It is here that the impact of the creation of the fetal citizen is central to reproductive citizenship. Lupton argues that as a result of the discourses of fetal citizenship and the conceptualisation of pregnancy as containment the pregnant woman is judged to be less important than the fetus developing within her [54]. To justify this argument Lupton again draws upon neo-liberal ideologies, where children hold a special place of importance because they represent future potentiality for the state. Lee and Motzkau refer to this positioning of children as 'human futures' [76]. Lupton argues that fetal citizenship should be seen as an extension of this concept, with fetuses also considered to be 'human futures'. There is empirical evidence supporting this. For example, a genealogy of FAS prevention discourses taking place in Finland in the 1980s and 1990s demonstrated increased reliance upon the requirement to protect the fetus [77]. Further, Bell et al [78] critiqued the public health discourses surrounding three maternal health behaviours; maternal smoking, drinking during pregnancy and being overweight / obese. They concluded that within these discourses the children, and fetuses in the case of prenatal alcohol consumption, were often constructed as a victim to their mother's behaviour.

2.3.5 The discourse of good motherhood

It is acknowledged that what it is meant by being a 'good' mother is difficult to define and is intimately tied to wider cultural influences and assumptions [79] [80] [81]. However, within the sociology of motherhood the ideology of intensive mothering is often considered to be the dominant model of good motherhood in modern Western societies [79, 82]. Originally discussed by Hays in 1996, intensive mothering means a:

'child centred, expert guided, emotionally absorbing, labour intensive, financially expensive ideology in which mothers are primarily responsible for the nurture and development of the sacred child and in which children's needs take precedence over the individual needs of the mother'(page 510) [79].

The ways in which women internalise the ideologies of intensive mothering is evidenced in the literature. For example, in 2008 Lee published a study analysing narratives of women who formula fed their infants in the UK [82]. Within the UK formula feeding is widespread, with 45% of infants formula fed at six weeks and 76% at six months [36]. Despite this, Lee found evidence of maternal identity work throughout her analysis. For some participants the failure to establish breast feeding had had such an impact upon their perception of themselves as mothers that the term 'moral collapse' was employed. It is important to note that, in the UK, there are disparities in breastfeeding rates according to maternal education and professional (highest in those in managerial / professional roles and educated past 18), age (higher in those aged 30 and above) and ethnicity (highest in ethnic minorities) [36]. Further, even those women who described themselves as confident about their decision to formula feed and those who had planned to formula feed in pregnancy were shown to perform identity work in relation to this decision and their positions as mothers. However, Lee does not provide any demographic information about the women in her study and thus it is possible that her participants were drawn from population sub-groups in which formula feeding was less common and thus these feelings of 'moral collapse' were likely to be heightened. In contrast, Earle [83] interviewed 19 women from a diverse range of occupations (ranging from professional to unemployed and not seeking work). She reported a more complex narrative of breastfeeding and maternal identity. Women choosing not to breast feed again associated failure to breast feed and 'maternal deviance' (page 16). However, some women also reported the decision to formula feed as a positive one, in which the partner was able to share the burden of infant feeding and the woman was able to more quickly regain her self-identity post-pregnancy. Despite this variance, these findings support the perception that in the UK the idiom 'breast is best' is largely accepted and thus breast feeding has come to be part of the discourse of good mothering. As Lee states '*breast is best communicates a broader message than about simply nutrition*' (page 476) [82].

With respect to reproductive citizenship, the discourse of intensive mothering becomes relevant because of the creation of the fetal citizen, discussed above. In effect, when a woman conceives she is considered to be carrying a fetus / child that is more important than herself and thus she is also subject to the demands of intensive mothering [53, 56, 82]. Lee refers to pregnancy as cultural state of the 'good mother in waiting' [82]. Arguably, it is the imperative for maternal self-sacrifice within the ideology of intensive mothering [84] that

holds the most pertinence for reproductive citizenship as applied to the topic considered in this thesis, namely alcohol use in pregnancy. This is because maternal self-sacrifice carries with it the implication that a pregnant woman must willingly abstain from all behaviours that carry a potential risk to her fetus. It has been argued that expectations of self-sacrifice are even more forcefully applied during pregnancy than at any other time in motherhood [53, 85]. The strength of the requirements for self-sacrifice in pregnancy has been demonstrated in empirical work from accounts of women who have been seen to place their own needs above that of their fetus and the subsequent difficulty these women have had in being able to identify themselves as 'good mothers'. In the study by Root and Browner, the authors discuss one particular research participant's account of consuming a large amount of junk food and carbonated drinks during her pregnancy by saying that:

'Maria (participant) was among those who separated and prioritised her needs above the fetus by openly resisting the prenatal norms she was subjected to. The resultant confusion in subject, it, me, they, throughout (her quote) reflects Maria's efforts to consolidate a pregnant subjectivity that heeds its own self determined rules' (page 217) [86].

Additionally, research performed by Radcliffe in 2011 [87] evidenced the considerable effort that pregnant illicit drugs users put in to defining a maternal identity that distanced them from drug use and moved towards what was described as 'normal' family life. Further, in addition to difficulties in maintaining an identity as a 'good' mother, women who are seen to place the needs of their fetus above themselves are also frequently subject to enacted social stigma both from their own social networks and strangers [54, 88, 89].

2.3.6 The onus of 'responsibility' in the discourses of reproductive citizenship: process of individualisation

Lupton argues that pregnancy is a phenomena that can be viewed as part of the wider process of the individualisation of risk as discussed by Beck [90]. In brief, Beck contends that society is transforming into one in which an individual's capacity for agency in their life course is increasingly taking precedence over any belonging to existing social structures, for example social class [90]. What underlines this understanding of individualisation is personal choice, freed from traditional morays people have the capacity to choose where they belong in society. Beck states that:

'the individual himself or herself becomes the reproduction unit of the social in the life world. What the social is and does has to be involved with individual decisions.

Or put another way, both within and outside the family, the individuals become the agents of their educational and market mediated subsistence and related life planning and organisation. Biography itself is acquiring a reflexive project' (page 90) [90].

The potential for agency and freedom that are apparent in this process of individualisation are, arguably, attractive prospects. However, individualisation carries with it a price because with this agency comes a responsibility for the management of one's own life course and incumbent blame when events do not go well [91]. Within reproductive citizenship, the ramification of this belief in individual responsibility is that the onus of responsibility for the management of a successful pregnancy and for ensuring the optimal health of the fetus is placed firmly with the mother. This resonates strongly with the imperative for personal responsibility for health that is core to neo-liberalism [92]. Pregnant women are expected to behave rationally, to calculate how to reduce risk to their fetus and act accordingly [58]. This creates a dualism in the narratives of risk in pregnancy in particular, with pregnant women cast as having the capacity to both protect and harm her fetus. Ruhl writes that:

'prenatal care ... simultaneously casts the pregnant woman as an authority and an agent in the care of herself and her foetus even while it supports a subtext which invokes the very opposite: the irresponsible woman who endangers the health and wellbeing of her fetus' (page 97) [58].

Evidence of the weight of this discourse of maternal responsibility is evidenced empirically. In 2010, Keenan and Stapleton published a study that aimed to discuss construction of maternal obesity as a 'risk' [93]. The bulk of the paper reports the analysis of the interviews performed with 60 women (pregnant and mothers). However, the authors did note that they observed media reports of maternal obesity by searching the Lexis Nexis database for articles published during the study period. They identified 85 relevant articles and concluded that the content of these articles reflected ideas of maternal responsibility, in particular emphasising the growing burden of maternal obesity to infant health and the UK National Health System (NHS) in general. Lupton draws on data arising from 60 women (mothers to at least one child aged under five) resident in Sydney to elucidate how they conceptualised the health of their infants and small children. She found that these women did not view the good health of their child as something that was beyond their control, instead constant maternal vigilance was required to ensure it [56].

Maternal responsibility and the resulting potential for blame is understood by Lupton to be a critical constituent of the discourses that converge within reproductive citizenship [54]. However, it has also been argued, by Lupton and others, that to view a healthy pregnancy as something that can be willed by the mother is erroneous and unfair [54, 58]. There are two arms to this critique: (1) the biology of fetal development; and (2) the social context in which pregnant women act.

Firstly, it is acknowledged that often the processes of fetal development occur without involvement of the mother and are simply beyond her control, for example in the case of many congenital anomalies. It is argued that this lack of control over fetal development is not acknowledged in the discourse of maternal responsibility [58] [54].

Secondly, individualisation makes a critical assumption that wholly autonomous decisions are possible and thereby negates the complex interplay between structure and agency that is at the heart of sociological thought. Individualisation fails to recognise the social context in which choices and actions are embedded [94]. Thus, Lupton writes that within the discourses of reproductive citizenship there is a critical failure to recognise the sociocultural influences in which pregnant women's choices are enacted [55]. The problematic nature of isolating a pregnancy from the rest of a woman's biography is evidenced by research on dependent alcohol use in pregnancy. In 2000, Astley et al published a comprehensive review of the histories of 80 women who had given birth to at least one child that had been diagnosed with FAS [95]. Despite being drawn from diverse ethnic and socioeconomic backgrounds, these women were unified by commonalities in comorbidities of mental health problems (only four percent had no concurrent diagnosis of a mental health disorder), illicit drug use and histories of abuse (for example, 58% reported childhood sexual abuse and 95% reported experiencing sexual and / or physical abuse during their lives). Critically, 94% of the women reported not wanting to give up drinking during their pregnancy because alcohol helped them cope. It was from this research that Salmon drew the conclusion that '*the women most likely to have a child with FASD are those least likely be able to reduce their alcohol use on their own in response to public health messages*' (page 168), instead arguing for comprehensive education and support in these complex situations [50].

Within Lupton's writings on reproductive citizenship, the failure of the discourse of maternal responsibility to engage with the life context and experiences of the pregnant women is

conceptualised in regards to maternal socioeconomic status. Using the findings of the same study of 60 women resident in Sydney, she highlighted that women with high socioeconomic status reported being more vigilant in changing their habits during pregnancy than women of lower socioeconomic status [56]. In a later book chapter, she references these findings and draws the conclusion that women from lower socioeconomic groups may not want to or be able to subscribe to the ideals of reproductive citizenship [55]. Ruhl also highlights socioeconomic disparities in the ability to comply with the discourses of reproductive citizenship. She argues that the process of individualisation and the requirement for rational risk calculation is inherently classist:

'only middle class, well educated women will care if they are popularly considered to be suitable rational agents, for this group that self-identification is critical. In a sense, poor women, so called third world women and some racial groups are assumed by the liberal model to be non-rational, there is no sense appealing to these groups on the basis of shared sense of responsibility. In reality, of course, most women genuinely want what is best for their babies.' (page 111) [58].

2.3.7 Why reproductive citizenship?

As will be explained fully in the next chapter, this research has been influenced by precepts of grounded theory. My aim was to allow the empirical data arising from the interviews to 'speak for itself' and thus a suitable theoretical positioning for the research was not sought until analysis was complete. It was my aim to identify a theoretical stance that would help to further conceptualise this analysis.

It quickly became apparent during the interviews and within the analysis that when women were asked about alcohol and about risk in pregnancy what they talked about was what it was like being pregnant. Their narratives did not focus on simply risk perception alone, nor on alcohol, nor on the responsibility that they felt for their baby. Rather, they talked about all of these things. Similarly, reproductive citizenship is unique in that it attempts to bring together the wide body of literature concerning the varying discourses that affect pregnant embodiment [54]. Therefore, it was chosen as the theoretical framework for this thesis because it held the most explanatory power for the entire map of the women's narratives.

2.4 Chapter Summary

Within this chapter both the implications of a social constructionist approach and the concepts contained within the umbrella of reproductive citizenship have been explained.

Social constructionism does not tie this research to a particular methodological approach. Rather it has ramifications for the way the data emerging within this research is understood, in particular regarding the knowledge that no truth claims are being made and the need for researcher reflexivity. Through the lens of reproductive citizenship pregnancy is conceptualised as a time when the demands of neo-liberal citizenship are amplified. Women are required to act as rational, self-regulating citizens not only for their own benefit but for the benefit of their 'fetus / child'. They are expected to willingly put the needs of the 'fetus/ child' before their own in order to be considered a 'good' mother and are considered to be solely responsible for the well-being of their fetus / child. These ideas underpin the discussion of this thesis. In the following chapter the study design will be justified and the methodological approach and specific methods regarding the in-depth interviews with pregnant women will be explained.

Chapter 3: Explanation of study design and the methodology and methods of the qualitative interviews.

3.1 Chapter Introduction

In this chapter, the study design for this research is explained and justified. The research consists of two main arms: (1) qualitative interviews with pregnant women to understand their views on alcohol use in their pregnancy and; (2) a systematic review of qualitative literature to identify and assess the available qualitative literature addressing pregnant women's views on alcohol consumption and factors that influence their consumption. In particular, it will be explained how the interviews and systematic review were performed in relation to each other.

The methodology underlying the approach taken to the qualitative interviews and the subsequent analysis of interview data will then be explained. The methodology and methods of the systematic review will be detailed in a later chapter (chapter five). The methods outlining specifically how participants were recruited, interviews conducted and data analysed will then be detailed. A reflexive account of the researcher's positioning during the process of data collection and analysis is then summarised. Finally, in order to provide some contextual understanding of the interviews a synopsis of the drinking culture in North East England is presented.

3.2 Explanation of study design

As stated above, there are two main components to this research, interviews with pregnant women and a systematic review of qualitative literature concerning alcohol use in pregnancy. Importantly, the interviews were performed before the systematic review. Therefore, this study is best viewed as a sequence of four inter-related phases:

- 1) interviews with pregnant women
- 2) systematic review of qualitative literature addressing alcohol use in pregnancy
- 3) identification of relevant sociological theory to help conceptualise the interview data
- 4) interpretation of interview data in light of the findings of the systematic review and the identified sociological theory.

This sequence was necessary to achieve the overall aim of the study design, which was to interpret the data generated by the interviews to develop ideas and propositions about the

research question. Only then did I wish to engage with pre-existing qualitative literature concerning alcohol use in pregnancy identified in the systematic review and relevant sociological theory to help elaborate and enhance the findings.

This approach was considered necessary because the study design has been influenced by some aspects of grounded theory, in particular the requirement to stay close to the data [96]. Remaining close to the data ensures that the more explanatory accounts resulting from the analysis of the interviews reflect concepts within the transcripts and prevents focusing on preconceived conceptual thoughts which preclude the development of other ideas in the data set [96, 97]. Performing the interviews before the systematic review prevented, to the best of my ability, any unconscious 'directing' of interviews with any presupposed ideas of what participants should say based on concepts and / or theoretical standpoints already identified in the literature. Consequently, the systematic review should be conceptualised as forming a distinct part of the overall research, not the background to the research. Further, relevant sociological theory was not engaged with until the initial analysis of interview data was complete, i.e. all transcripts had been coded and the emergent themes developed. Again, this ensured that interviews and analysis were grounded in the voices of the participants and not in a particular theoretical standpoint.

Initially, there does appear an obvious contradiction between a social constructionist approach to the research and the admittance that the study design has also been influenced by grounded theory. Social constructionism is explicit that objective research is impossible [40]. In contrast, grounded theory attempts to position the researcher as outside of the research process [96]. However, it is my contention that the desire to remain as grounded in the data as possible is compliant with the philosophical approach adopted for this research. Focussing upon the participant accounts, and attempting to ensure that the subsequent analysis and use of theory are as grounded in the participant voices as possible, does not deny the fact that the knowledge created is a co-construction, nor does it deny the role of the researcher within the process.

However, due to time constraints the systematic review was performed before the formal analysis of the interview data (the interviews were performed in summer 2009 and spring 2010, the systematic review in 2011-2012 and the formal analysis of the interviews in 2013/2014). Therefore, whilst the interviews and initial analysis were conducted without formal

knowledge of the related literature base, the final themes were decided upon with this knowledge. It is therefore possible that knowledge of the literature did influence the themes more than I had originally hoped. For example, I had first thought that the themes ‘keeping something of yourself’ and ‘baby comes first’ were oppositional. I had read a lot about the concept of ‘agency’ in the systematic review and automatically made the link that keeping something of yourself was talking about agency. In contrast, I assumed that baby comes first was talking about the opposite, the willingness to subsume your own desires and needs for those of your child. It wasn’t until I was challenged about the concept of agency by a supervisor, that I was able to recognise my preconceived notions and look more closely at the data to find a more appropriate explanation for these accounts.

3.3 The methodological approach to interviews and data analysis

3.3.1 *Why interviews?*

As explained in the Introduction, the overall aim of this research is to explore pregnant women’s understanding of their drinking behaviour. Thus, in-depth interviews were chosen as the method for data generation because they enabled me to talk directly to pregnant women, to attempt to understand the opinions and experiences that are at the heart of this research [98].

Interviews were selected as the most appropriate data collection method, as opposed to Focus Groups, because of the sensitivity of the issues being explored and the potential for stigma when discussing alcohol use in pregnancy. Therefore, it was felt that the more personal dynamic of an interview may give the participant an opportunity to discuss issues more freely than in the potentially inhibiting social interactions established within a focus group. Interviews also facilitated a greater depth of understanding, which was important for the research question [99].

3.3.2 *What is the meaning of the data generated by in-depth interviews?*

In keeping with the social constructionist foundations of this research, it is understood that the data emerging from the interviews conducted are contextual and are co-constructed by the unique interaction between the researcher and the study participant [100, 101].

Brinkmann and Kvale [102] use the analogy of the interviewer as a ‘traveller’. The role of the interviewer is not necessarily to ‘uncover’ the pre-existing and already defined thoughts of

the interviewee (a position more aligned to a positivist philosophy). Rather, knowledge is generated by the interview process:

'Interview knowledge is socially constructed in the interaction of interviewer and interviewee. The knowledge is ... actively created through questions and answers, and the product is co-authored by interviewer and interviewee' (page 63) [102]

The interview is inherently a communication between researcher / interviewer and participant / interviewee. It is this interaction that forms the direction of the interview, both parties react to the other by interpreting what has been said both verbally and non-verbally. It is this iterative, active process that moulds the data generated by the interview. A consequence of this understanding is the acceptance of the data generated as highly contextual [102]. If the data is a co-construction between researcher and participant, it can be argued that it has no meaning outside of the specific context in which it was formed [100]. However, it is argued within this thesis that this is an extreme position that universally denies the capability of people to ever meaningfully share experiences in a social context [100]. Thus, it is acknowledged that interview data is deeply contextual but that this does not prevent drawing conclusions that are wider than the immediate context [100].

3.3.3 The approach taken to conducting the interviews

My approach to interviews was characterised by a belief that interviews are not 'normal' conversations. Rather, they are 'conversations with a purpose' [103]. They had a specific aim, which was to understand participants' views about alcohol use in pregnancy and what shaped these views. However, whilst interviews are not 'normal' conversation, they are, nevertheless, human interactions and the relationship that developed between myself (as the interviewer) and the participant (as the interviewee) was essential to the success of the interview. Thus, interviews were very dependent upon the personal skills that I employed as the interviewer [102]. For a participant to feel comfortable enough to discuss their experiences, it was vital to establish a rapport between myself and the participant. In order to do this, I adopted an approach to the interviews akin to what Rubin and Rubin describe as 'Responsive Interviewing' [98]. This model of qualitative interviewing acknowledges the personal nature of the interaction by emphasising the importance of empathy in the interview context and by reflecting upon the mutual 'give and take' of the interview. I attempted to establish this sense of empathy by adopting a level of reciprocity within the interviews and divulging a level of personal information. As Oakley famously stated, there

can be 'no *intimacy without reciprocity*' (page 49) [104]. Each interview was different. I interacted with each participant in a unique way in an attempt to establish some commonalities. In such a way, I hoped to foster the 'conversational partnership' discussed by Rubin and Rubin [98]. The need for a reciprocal approach to interviews is also stressed by Mills et al [105] who argue that reciprocity is inherent to the constructivist approach to interviewing taken within this research. It is through fostering a sense of reciprocity that interviewee and interviewer are positioned as equal partners in the co-construction of knowledge.

This approach to the conduct of interviews carries with it the risk that the reciprocity and interviewer self-revelation may subvert the focus of the interview away from the experiences of the interviewee. Thus, the need for interviewer reflexive self-reflection is heightened, to understand themselves and their influence within the research and to ensure that the original aim of the interviews is maintained [101, 105]. A particular example of how I approached this came in the second phase of interviews when I was a pregnant women interviewing other pregnant women. This is explained in section 3.5 of this chapter.

A further implication to fostering interviews as a 'conversational partnership' [98] is how the interviews were structured and how topic guides were employed. As Rubin and Rubin argue:

'The goal of responsive interviewing is a solid, deep understanding of what is being studied rather than breadth. Depth is achieved by going after context, dealing with complexity of multiple, overlapping and sometimes conflicting themes; and paying attention to the specifics of meanings, situations and history. To get that depth, the researcher has to follow up, asking more questions about what he or she initially heard. Research design and questioning must remain flexible to accommodate new information, to adapt to the actual experiences that people have had, and to adjust to unexpected situations.' (page 35) [98]

Thus, the interviews were flexible, with no set questions and no set order. Whilst a topic guide was developed for the interviews (Appendix A) it served as an aide memoire, ensuring relevant topics were addressed in each interview but not forcing a rigid order or schedule upon the interviews. The exception to this is that interviews were uniformly initiated by asking about the participants' experiences of alcohol use prior to pregnancy. This was a useful way to establish the conversation, provide a sense of context and enable the participant to become more comfortable within the interview before discussing their pregnancy directly.

As previously discussed, the interviews were conducted before the systematic review of relevant qualitative literature. Thus, the topic guide was not based upon factors identified as important in previous research. Rather, it was structured with the objectives of the interview in mind.

3.3.4 How interview participants were sampled

Purposive sampling was undertaken within this research to increase the potential of the research to develop a richer understanding of drinking in pregnancy across a diverse range of pregnant women [98, 106]. This approach means sampling participants according to a range of different characteristics relevant to the research question [103]. It is hoped that by doing so a set of contrasting narratives will be generated, which will increase the depth of understanding and the robustness of the analysis [98, 103].

Participants were sampled according to: (1) perceived SES (low vs high); (2) drinking in pregnancy status (abstinent vs drinking); and (3) gravidity (first pregnancy or not). Socio-economic status was chosen because demographic data in the UK suggests that women from a higher socio-economic background are more likely to drink in pregnancy [36]. It was felt that interviewing women who continued to drink in pregnancy, and those that had chosen abstinence, would be vital to developing as nuanced an understanding of the research question as possible. Finally, by interviewing women with a range of gravidity it was hoped that women with differing levels of experience of being pregnant would be accessed and that this could help develop the richness of the data.

Interviews were performed until data saturation was judged to have been reached. This is the point at which no new themes appear to be emerging from the data [98]. This is a common approach to the generation of qualitative data, reflecting the aim of achieving a depth of understanding rather than attaining a statistically representative sample associated with research based within a positivist paradigm [107].

3.3.5 The approach taken to the analysis of the data generated by interviews.

It is often recommended within qualitative research that data collection and data analysis are performed concurrently and treated as inter-woven processes [96, 108]. By doing so, the interviews can develop iteratively, enabling emergent ideas to be explored in later interviews [96]. On-going analysis also enables the researcher to assess when data

saturation has been reached and thus interviewing can stop. Indeed, as Pope et al stated in 2000, in reality it is very difficult not to begin analysis during data collection because it is impossible not to think about what is being said by study participants [108].

The method of data analysis employed was that of thematic coding. Braun and Clarke define a theme as '*capturing something important about the data in relation to the research question, and representing some level of patterned response or meaning within the data set*' (page 82) [109]. The thematic coding employed within this study was influenced by Grounded Theory principles, namely staying close to the data and use of constant comparative methods to develop themes [96]. Remaining close to the data ensures that the more explanatory accounts resulting from the analysis reflect concepts within the data and prevents focusing on preconceived conceptual thoughts which precludes the development of other concepts within the data [96, 97]. Constant comparison is the means by which initial codes are developed into more analytic ones. At its essence it means 'comparing data with data to find similarities and differences' (page 54) [96]. Further, themes were labelled by 'In-vivo' terms where appropriate. In-vivo themes are those that are labelled by the participants' own words and can help facilitate staying grounded in the data by preserving the participants' meanings within the process of refining themes [96].

Finally, thematic coding was considered to be the most appropriate method of analysis because it is considered to be a method that is not closely tied to a theoretical or epistemological stance [109]. Thus, the use of thematic coding ensures congruence with the overall aim of this research design, which was to interpret the data generated by the interviews to develop ideas and propositions about the research question and then to engage with relevant pre-existing theory to help elaborate and develop the analysis. However, thematic coding can never be truly analytically or theoretically free. Themes are created by the analyst and thus carry with them the assumptions and interests of the researcher [103]. For this reason, regular meetings were held with my supervisory team to discuss and challenge emergent themes and analytic thoughts. This is referred to as pragmatic double coding by Barbour [110]. The aim of these meetings is not to value one point of view of another, rather it is to '*maximise the analytic potential of exceptions or potential alternative explanations*' (page 1026) [110].

3.4 Interview Methods

3.4.1 NHS Ethical and Research & Development Approvals

Ethical approval was received from county Durham and Tees Valley Research Ethics Committee in September 2008 (reference 08/H0908/71). Research and Development (R&D) approval was gained from Newcastle upon Tyne Hospitals NHS Foundation Trust (NUTH) in October in 2008 (reference 4643). The approvals letters are detailed in Appendices B and C, respectively. Further, NHS ethical approvals necessitated the use of a Participant Information Sheet. This was given to each participant before the consent procedure and detailed the aim of the research, the procedures involved in participation and who to contact in case of any queries (see Appendix D).

3.4.2 Inclusion and Exclusion Criteria

Only women who were experiencing medically 'low risk' pregnancies, and thus attending routine antenatal care were eligible to participate in this study. For the purposes of this study, normal / low risk pregnancies are defined as having no complications and expected to go to full term. The inclusion and exclusion criteria were:

Inclusion criteria:

- (1) attending routine antenatal care
- (2) booked before 14 weeks gestation (earlier booking is a marker of compliance with routine antenatal care)

Exclusion criteria:

- (1) Experiencing known pregnancy complications, including diagnosis of a congenital anomaly (abnormality of the fetus) and multiple pregnancy
- (2) younger than 18 years old
- (3) women reporting no alcohol consumption prior to pregnancy
- (4) history of illicit substance use and / or alcohol dependence. It was felt that women with a history of dependency would likely have a difficult and complicated relationship to alcohol that is linked to their personal history and life events [95]. Thus, it was felt that asking

women with a history of alcohol dependence about their experiences and views of alcohol use in pregnancy would essentially form a different research question.

3.4.3 Recruitment Strategy

To ensure a maximal recruitment rate, women were recruited through NHS antenatal services, in particular the community midwifery service within Newcastle upon Tyne. Approval to approach community midwives was gained from the head of community midwifery services at NUTH. The community midwives were based in four 'satellite' bases from which they travelled to local GP surgeries to run antenatal clinics. Contact was established with all four bases and weekly visits were made to each base during the period of recruitment. During the initial visit, I introduced myself and explained the purpose of the research. I outlined the nature of midwife involvement and began the process of forging working relationships with the midwives. Subsequent visits served to foster these relationships, to remind the midwives of the research and to continually thank them for their efforts in approaching pregnant women on my behalf. I devised 'midwife information sheets' that were given to each midwife and acted to remind the midwife of the research and the recruitment process. The recruitment process is described in

Figure 3-1: The participant recruitment process

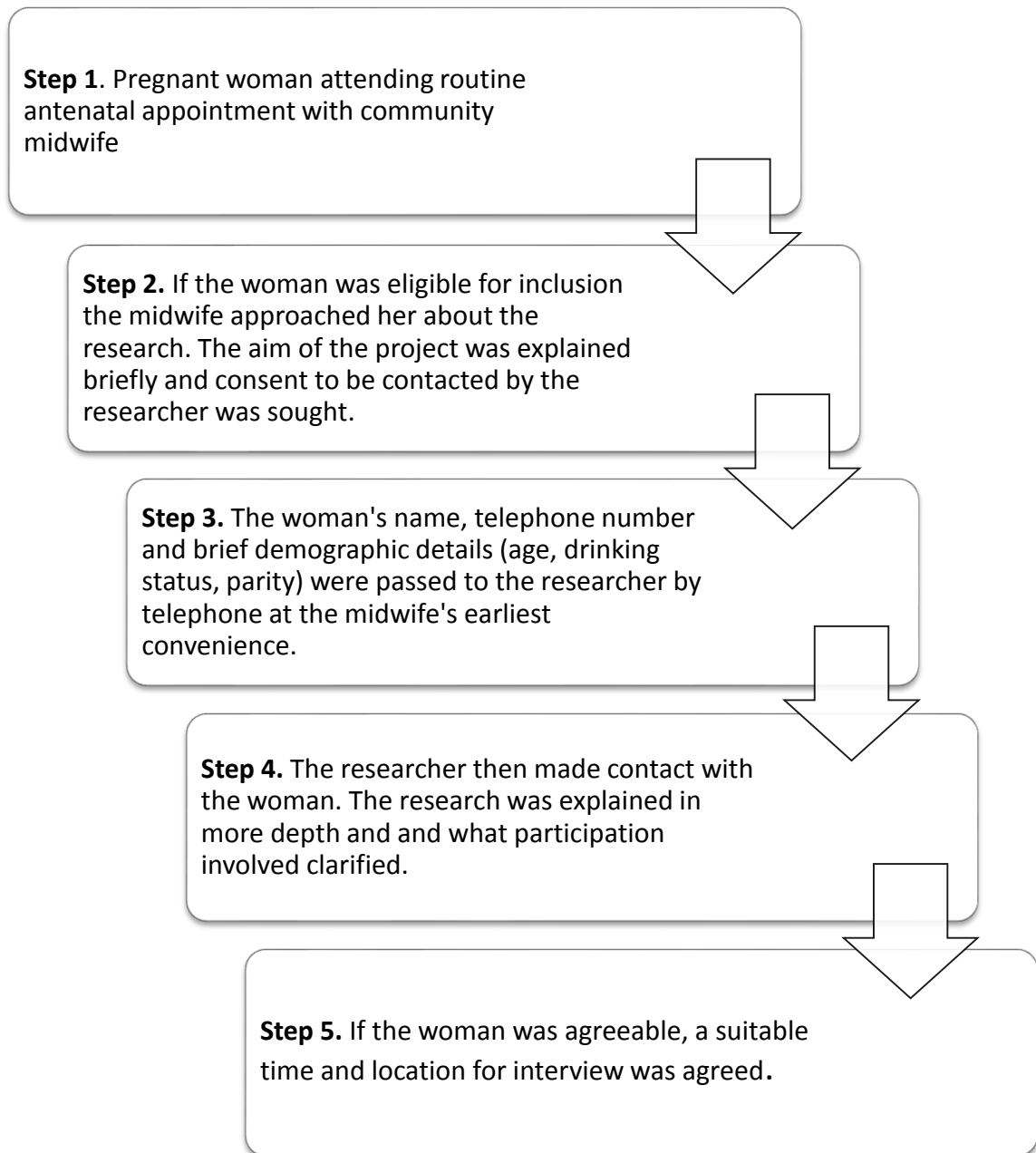
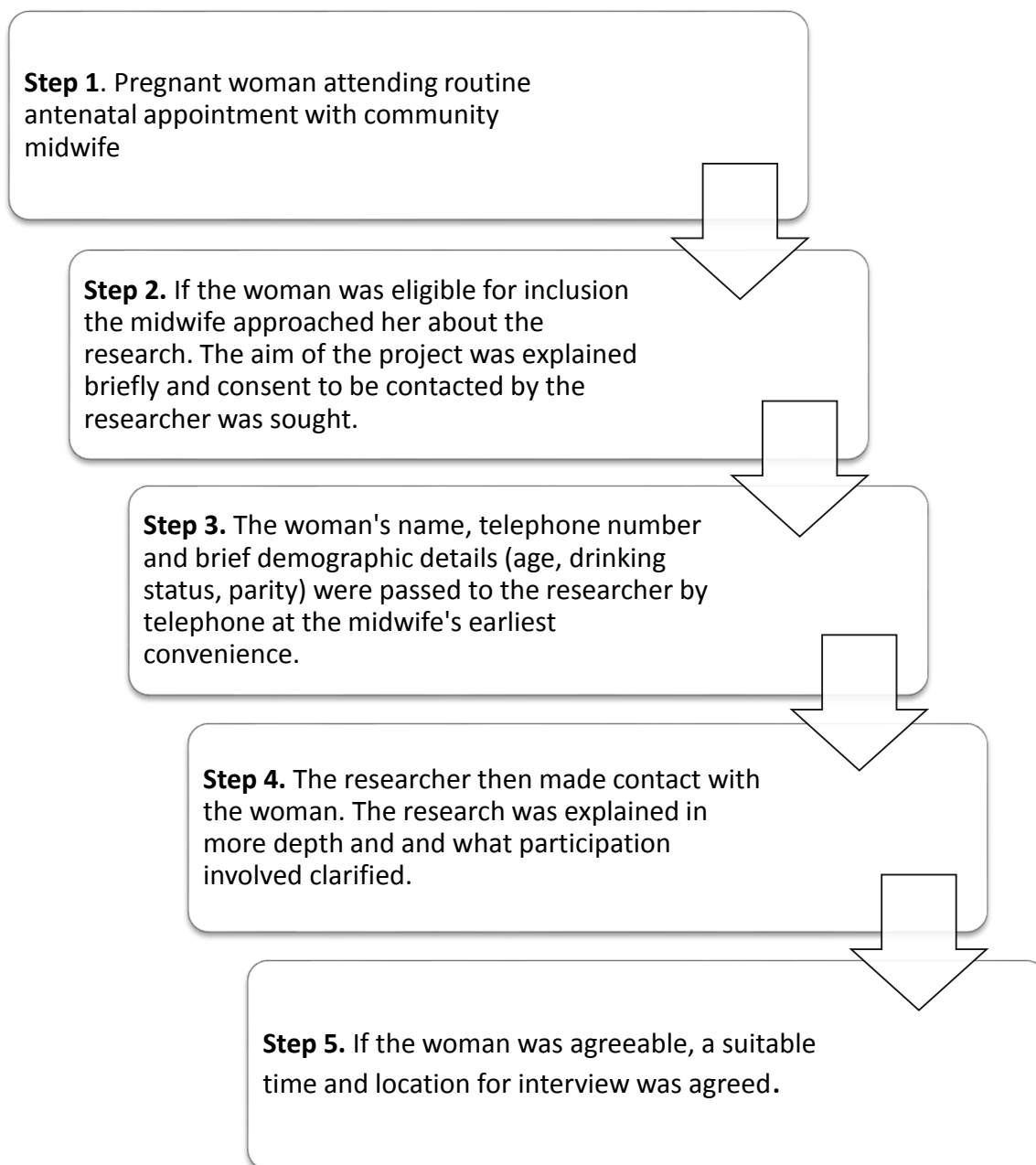


Figure 3-1: The participant recruitment process



However, on three occasions this process was not complied with. One participant was known to me as a work colleague and thus was recruited through personal networks. Two were recruited through attendance at a Sure Start antenatal drop-in run by the community midwives when I was finding it difficult to recruit more women from a low socio-economic background.

To ensure that the purposive sampling criteria were met, participants were asked to state their gravidity and drinking status during the interview. Originally, the participant's home address was used to identify their socioeconomic position by comparing their postcode to the Index of Multiple Deprivation [111]. However, this approach was abandoned after the

interview with participant 4, who was a highly educated professional but living in an area classed as 'deprived'. To overcome this difficulty, I used my own judgement to determine participants' SES, based upon a combination of factors made visible to me during the course of the interview. For example, interview narratives often revealed education status and employment status. Further, housing conditions (both in terms of area of residence and specific residence) were apparent at time of interview.

After each interview, the researcher updated a sampling grid, placing the participant in accordance with the purposive sampling criteria. In this manner, I was able to check how many women of each category I had interviewed and feedback to midwives if more women of a different category were required to be approached in keeping with the purposive sampling undertaken.

3.4.4 Interview Process

Interviews were conducted at a time and location most convenient to the participant. This meant that, with the exception of one interview that was performed in a private room on Newcastle University premises, all interviews took place in the participant's home.

Immediately prior to the interview I would again explain the nature and purpose of the interview and seek written, informed consent for the audio recorded interview. All participants agreed to audio recording. The duration of the interview ranged from 45 minutes to two hours. After interviews the audio files were transcribed. I transcribed the first two and the final 18 were sent to a professional transcription company. All transcripts were checked by me for accuracy and anonymised.

Whilst I set out to undertake one to one interviews, this was not always possible because there were some occasions when other people were present. In seven instances children were present, in two cases the participant's partner was present for at least some of the interview and in two cases the participant's mother-in-law was there. When other adults were present they sometimes contributed their opinions during the course of the interview. However, I have not included these excerpts within my analysis as informed consent was not obtained from these individuals.

3.4.5 Data Analysis Methods

It was not possible to conduct formal data analysis (i.e. full coding of transcripts and subsequent development of themes) at the same time as data collection. Interviews had to be conducted as and when midwives referred willing pregnant women to me. This meant that interviews were conducted very quickly, often three or four per week. Consequently, in an effort to ensure that I was aware of the data that was emerging, after each interview I wrote field notes reflecting on what was said in the interview. This enabled an informal analysis and allowed emergent themes to be explored in later interviews. Further, the interviews were performed in two phases; the first phase was conducted in the summer of 2009 and the final phase in the spring of 2010. This spacing allowed time to transcribe, read and perform initial informal coding on the first interviews before the final group was conducted.

The analysis of the interview transcripts was performed 'by hand', i.e. a qualitative data analysis software package was not used. Each transcript was first analysed individually. After detailed reading of the transcript, both a summary account of key ideas and quotes emerging from the transcript was written and a diagram was produced which indicated how ideas were related to each other within the participant's narrative. Initial codes were then developed by comparing accounts across transcripts and detailing how ideas and thoughts contained within narratives compared and contrasted.

Comparisons were made across different groups of participants to determine if there were any apparent systematic differences in accounts. In particular, comparing the narratives of women drinking in pregnancy to those abstaining provided a rich subject for analysis. Despite differences in the expression of views it was often possible to see common meanings underpinning narratives, for example in the need to be considered a good mother. In this way the analysis utilised a form of typology, explained by Ritchie et al to be useful in analysis when they '*give good purchase on the data and help explain differences*' (page 248) [112]. The examination of the diagrams and links between codes also enabled the final themes to become more nuanced by examining how closely linked codes were in some accounts but not in others. Examples of two of the diagrams resulting from the analysis and how they helped themes develop are detailed in Appendix E.

3.5 Reflexive Account of the Researcher

The reflexive account has been divided into three sections, each detailing different phases of the research and how these dovetailed with different times in my own experiences of pregnancy and motherhood.

3.5.1 The first phase of interviews: a woman who had never been pregnant interviewing pregnant women

The first phase of interviews were conducted when I was 28 years old and at that time I had never been pregnant. For the duration of my adult life I had had a deep desire to become a mother. However, I had always been very fearful that I would not be able to become pregnant, my own mother had struggled for years with infertility and I was an only child. I felt that I had grown up with the discourse of infertility and as a consequence was strongly aware that pregnancy is not always a state that is easily achieved. The desire for a child, coupled with the growing undercurrent of anxiety that I may not be able to conceive, had grown stronger over the years as my relationship with my husband deepened and we committed to a future together. Indeed, during the course of these interviews I was engaged and shortly to be married (my marriage took place in October 2009). Thus, I approached these interviews with a personal sense of awe about pregnancy and motherhood. I fully acknowledged that this feeling would not be shared by all my participants but it was necessary for me to understand and accept my own stance. That being said, before interviews commenced I carefully examined my own sense of awe and how this related to thoughts on alcohol use in pregnancy. My immediate research work prior to my doctoral work had been to interview pregnant women using illicit drugs and / or drinking very heavily. This research had proved formative for me, forcing me to consider lived experiences and how these relate to life choices or lack thereof. In doing so, any prior judgements I had had about 'bad mothers' were challenged and broken down. Thus, I feel that I commenced doctoral interviews with no sense of moral judgement concerning women who chose to drink in pregnancy.

At times during the first phase of interviews I used my complete personal inexperience of pregnancy to help establish a sense of rapport. By making statements like 'you see, I've never been pregnant, so I have no way of knowing how it feels' I attempted to get participants to talk more expansively of their experience of pregnancy. This was a similar

experience to that reported by Earle when also interviewing pregnant women as a non-pregnant woman [113].

3.5.2 The second phase of interviews: a pregnant woman interviewing pregnant women.

The time between the first and second phase of interviews proved a time of significant personal change for me. I got married in October 2009 and then fell pregnant accidentally in December 2009 and had a very early miscarriage. Despite the pregnancy being unplanned, the pain and loss I felt after my miscarriage induced us to start trying again for a child immediately after. I found out I was pregnant again in January 2010. The second phase of interviews took place in the spring of 2010 when I was in the early stages of the second trimester and was still not visibly pregnant.

I went into these interviews with a good sense of emergent ideas from the first phase that I wanted to explore in more depth. Also, having successfully achieved a pregnancy and not miscarried had brought a great sense of personal relief. I was no longer afraid that I would be infertile. Having also gone through emotional pain of miscarriage and the subsequent extreme anxiety of the first trimester of pregnancy, I was also aware how difficult pregnancy could be. I felt that I had lost some of the awe I had previously felt and experience had engendered a more realistic sense of pregnancy.

I have explained that one of the risks in developing a sense of reciprocity during interviews is the potential to subvert the interview away from the focus on participant narratives. This was especially relevant during this stage in fieldwork as I was keen to avoid interviews becoming about my own alcohol use in my pregnancy and why I had chosen not to drink. I sought advice from a colleague who had interviewed people about the experiences of living with diabetes when she herself had diabetes. Her approach had been to not disclose her diabetes status unless directly asked. I decided to take a similar approach and not disclose my pregnancy unless I was directly asked. In reality, only two participants asked whether or not I had any children and in both cases this was after the interview had concluded and the tape had been switched off. These instances and participant reaction to my disclosure are detailed in Table 4-2.

As with the first phase of interviews, I worked hard to ensure that the interviews remained focussed upon the participant's experiences and views. I think that becoming pregnant and

passing successfully into the second trimester freed me to do this more easily. In a sense, my own pregnancy took the pressure off, I was successfully pregnant and I felt that the chances were that my worst nightmares had proven unfounded, I would be a mother.

Finally, during this pregnancy I chose to not consume any alcohol. This was not because of a sense of perceived risk but rather in an effort to keep my doctoral studies from pervading my personal life as much as possible. In effect, the act of alcohol consumption when pregnant would make me start to think about my PhD and what was left to do etc.

3.5.3 My experiences of pregnancy and motherhood and the impact upon data analysis

It is important to note how my feelings regarding pregnancy affected my ability to analyse the data generated by the interviews. As previously noted, between the two phases of interviews I read all the first transcripts carefully and attempted to begin formative analysis of what was being said. This largely occurred before my first pregnancy. During the reading of one of the transcripts, I noted that my own longing to be pregnant was making it difficult to concentrate on her narrative. I noted that every time the participant would say the word pregnant I would feel jealous and a sense of longing.

Formal data analysis did not begin until October 2013, during my maternity leave with my second child. At this point I had been pregnant three times, as previously noted my first ended in miscarriage but the last two were successful. I was now a mother to a three year old daughter and a six month old son. My view on pregnancy had changed. The awe that I had described during the first phase of interviews and which began to wane during the second wave had dissipated. I now saw pregnancy as a relatively short period in the life span of a mother, my own personal lens had shifted away from focussing solely on pregnancy to encompassing pregnancy as the beginning of motherhood.

I felt that this process freed me to think about participant narratives and what they were saying without having any related personal feelings. This was something that I had experienced and something that I acknowledged was a unique experience and different for every woman.

3.6 Drinking culture in North East England

The interviews with pregnant women all took place in Newcastle upon Tyne, a city in the North East of England. In order to understand the accounts of study participants it is helpful to provide a contextual background of typical drinking behaviour the UK in general and the North East specifically.

The UK is typically seen as a culture that is permissive of drinking, in particular patterns of regular, high intensity 'binge' drinking is said to be characteristic of the way in which British people consume and enjoy alcohol [114]. For example, again drawing on data from the 2011 General Lifestyle Survey [37], it can be seen that 64% of men and 54% of women consumed alcohol on at least one day in the seven days prior to the survey interview. Further, 16% of men and nine percent of women drank on at least five out of the seven preceding days. Of those who consumed alcohol in the prior week, a roughly equal proportion of men (51%) and women (53%) exceeded the Department of Health guidelines for daily alcohol consumption (four units for men and three units for women). Heavy drinking is defined within the survey as that likely to lead to intoxication; more than eight units for men and more than six units for women. Very heavy drinking was defined as more than 12 units for men and more than nine units for women. Men were more likely than women to engage in heavy drinking and very heavy drinking (18% and nine percent of men respectively compared to 12% and six percent of women). This pattern of drinking is associated with considerable morbidity; in 2012/13 there were 1,008,850 admissions to hospital due to an alcohol related disease [115].

The rates of drinking specific to the North East of England typify this pattern of behaviour; 68% of men and 57% of women reported drinking in the past week. Further, 35% of women consumed more than three units on their heaviest drinking day and 13% consumed more than six units [37]. These represent the highest and second highest rates by region in England respectively. Further, the North East had the highest regional rate of alcohol related hospital admissions in England, 2500 per 100,000 population [115]. In Newcastle upon Tyne specifically there have been 847 per 100,000 population hospital stays recorded due to alcohol related harm in 2015, this is again higher than the average rate for England in 2015 of 645 hospital stays per 100,000 population [116].

It is worth noting that whilst the levels of drinking in women nationally and specific to the North East are consistently lower than men, they do represent an increase in drinking by women that has occurred during the latter part of the twentieth century and has been sustained [117]. It is often remarked upon that this increase in female drinking is linked to a cultural shift towards a far greater acceptability of female drinking in general and drunkenness specifically. For example, Plant states that:

Just as young women's drinking has changed so has their attitude to drunken behaviour. In the UK at this point in time we are in a situation where young women are as likely as young men to boast about their risky behaviour when drunk as almost as badge of honour' (page 41) [114]

However, the ubiquitous social acceptance of female drinking suggested by Plant has been challenged in the literature [118]. In particular, an examination of some of the qualitative literature surrounding women's own accounts of their drinking behaviour reveals a nuanced and sometimes uncomfortable juxtaposition of the identities of drinker and woman. For example, Rolfe et al [119] interviewed 24 women drawn from a much larger longitudinal study examining the 'natural history' of heavy drinking. Consequently, of the 24 women, 17 were currently classed as heavy drinkers (defined as consumption of greater than or equal to 35 units per week) and on average engaged in binge drinking (defined as consumption of greater than or equal to seven units in one day) on three days out of the last seven. The women's accounts of their drinking behaviour revealed two major constructs: (1) drinking as a mechanism to help with emotional difficulties and life stress; and (2) alcohol as leisure and pleasure. Critically, within the latter construct women felt the need to perform identity work to construct an identity of a good and moral woman in addition to that of a drinking woman. This identity work was referred to as '*resisting and negotiating gendered identities*' (page 330) by the authors. This finding was complex, for some women they openly accepted the masculine identity that appeared to be linked to their drinking. Others altered the mechanisms of their drinking to attempt to restore a feminine identity, for example only allowing themselves to be seen in public drinking out of half pint glasses. Recent research performed in Western Scotland with women aged 30 to 50 echoed the importance of alcohol in gender roles and the performance of a traditionally feminine identity [120]. This research also revealed the complexity of the integration of alcohol into women's lives, not only was alcohol used to promote traditional femininity but it was also used by women as a

mechanisms to escape the responsibilities of life often associated with this traditional feminine role, i.e. caring for others.

It can therefore be concluded that the women participating in this study have been drawn from a culture in which prevalence data suggests that high levels of drinking are normative. However, these data may hide a difficult positioning for women in terms of the social acceptance of their drinking.

3.7 Chapter Summary

Within this chapter the study design has been explained, with particular reference to the sequencing of the different study components. The methodological approach to the interviews and subsequent data analysis have been detailed. The methods detailing how the interviews were conducted and how the analysis was performed have also been detailed. A reflexive account summarising my understanding of my own position performing the interviews and analysis has also been given. Finally, a brief summary of the drinking culture in North East England was provided in order to provide some context for the results of the interviews, explained in the next chapter.

Chapter 4: Results of qualitative interviews: women’s discussions of the role of alcohol in their pregnancy

4.1 Chapter Introduction

In this chapter both the demographics of the women interviewed and the findings from the analysis of the interviews conducted with pregnant women are explained. The findings are organised into five main themes: (1) Understanding alcohol use in life before pregnancy; (2) The role of medical norms in participants’ narratives; (3) Alcohol use in pregnancy as a social norm; (4) The ideals of good motherhood and the creation of stigma; and (5) Reactions to alcohol as a risk in pregnancy. Each theme is discussed in turn and the relationships between them highlighted. Quotes are used throughout to illustrate the findings.

4.2 Participant demographics

A total of 20 women were interviewed, following these I judged that data saturation had been reached and therefore no further interviews were required. The sampling matrix of the final participant group is displayed in Table 4-1 below. Table 4-1 Sampling matrix of participant group

Table 4-1 Sampling matrix of participant group

	High Socio-economic status		Low Socio-economic status		n
	1st pregnancy	> 1st pregnancy	1st pregnancy	> 1st pregnancy	
Continued to drink during pregnancy	3	3	0	4	10
Stopped drinking during pregnancy	3	3	0	4	10
n	12		8		20

The circumstances in which each interview was performed are explained in Table 4-2, alongside a brief obstetric history and demographic data for each participant.

Table 4-2. Details of participant demographics, obstetric history and circumstances of interview.

Participant Identification Number	Age	Brief obstetric history	Continued to drink?	Perceived socio-economic position	Details of interview
1	30	Second pregnancy after one previous miscarriage	Yes	High	Partner was there but participant told him to go upstairs and listen to music. A very easy interview, rapport easily established.
2	28	First pregnancy. Natural conception after two failed IVF attempts	No	High	Participant was in her home by herself and we sat across from each other at her kitchen table. She was quiet at first but became more at ease as the interview progressed.
3	28	Third pregnancy after two previous successful pregnancies	No	High	Participant was in her home with her middle child. Her daughter was napping at first but woke up about ten minutes into the interview. Rapport was not very easily established and her daughter was slightly upset by my presence and wanted to play with her mother.
4	27	First pregnancy	Yes	High	Participant was sat in her living room with her partner next to her. Both were professionals and her partner was keen to express his views as well.
5	36	Second pregnancy after one previous successful pregnancy	Yes	High	Participant was at home with her first child who was happily playing in the background. At first the interview went well but as time progressed her child grew impatient and wanted her mother's attention. I also worried that the participant was starting to feel defensive of her position as a drinker and I didn't seem to be able to overcome this.
6	26	Third pregnancy after two previous successful pregnancies	No	Low	The participant had her two children with her. They wanted to play with me and a lot of the interview was conducted with the children sitting on my knee showing me books and dolls etc. Rapport was easily established with the participant.

Participant Identification Number	Age	Brief obstetric history	Continued to drink?	Perceived socio-economic position	Details of interview
7	22	Second pregnancy after one previous termination of pregnancy	Yes	Low	I was slightly late for this interview because the participant lived in a high rise block of flats and I couldn't figure out what flight of stairs I should take. Her partner was in bed during the interview but at one point came out for a cigarette and to make a cup of tea. He then left again. Rapport was easily established and at the end she thanked me as it was nice to have someone to talk to.
8	30	First pregnancy	Yes	High	This participant was quite nervous at first but when she relaxed into the interview rapport was more easily established.
9	37	Second pregnancy after one previous successful pregnancy	Yes	High	The participant was at home with her child. Rapport was easily established and she had a lot to say. Her child got frustrated at one point and she had to sit him down in front of the TV with a snack. This made me feel a bit awkward and pressured to complete the interview in a timely manner.
10	24	Fourth pregnancy after three previous successful pregnancies	No	Low	The participant was in her home with her partner but he was in a separate room trying to sort out her children's toys. I was struck by the condition of her house, it was very messy and had no carpets on the floor. I tried hard to focus the participant on the use of alcohol and pregnancy but she was mostly focussed on her happiness with her new partner and her improvements in self-esteem.
11	28	Second pregnancy after one previous partial molar pregnancy	No	High	This interview was in the evening. Participant's partner was present for most of the interview and largely sat quietly but did contribute when the participant asked him questions.
12	35	First pregnancy	No	High	I arrived by taxi to the participant's home and she immediately walked out of her mother-in-law's house opposite explaining that her sister-in-law was currently in labour and they were waiting for news. I offered to re-arrange the interview but she said it was fine and let me into her house. Her mother-in-law stayed next to her on her sofa throughout. Rapport was difficult to establish at first. The participant seemed defensive and had very forthright views. It took her some time to relax into the interview and for me to feel that some level of trust had been established.

Participant Identification Number	Age	Brief obstetric history	Continued to drink?	Perceived socio-economic position	Details of interview
13	27	First pregnancy	Yes	High	The participant was in her home with her partner but her partner remained outside the room. Rapport was not very easily established in this interview. I think she got irritated by my questioning of alcohol as a potential risk in pregnancy and she felt very educated about the subject.
14	27	Fourth pregnancy after three previous successful pregnancies	Yes	Low	The participant was in her home by herself and I felt that rapport was quickly established. She seemed very at ease and open. Her partner came back from the shops and he seemed to feel awkward. He sat next to the participant for a small amount of time, then went outside for a cigarette and then to collect their youngest child from nursery. None of this seemed to affect the participant.
15	33	First pregnancy	No	High	Participant was by herself in her house. Her partner came in half way through to make himself lunch but stayed in a different room. I never felt that rapport was established in this interview. The participant was quite quiet and I don't think I was able to fully put her at ease, she would sometimes end her talk by saying 'does that help?'. I was also acutely disappointed in myself when I used a word she didn't understand and she had to ask me for clarification.
16	20	Third pregnancy, first ended in termination for medical reasons, second ended successfully	Yes	Low	The participant had her child with her, who played very happily while we were talking. It was easy to establish rapport but I felt that I struggled to get her to talk in a level of depth. After the tape had been switched off she asked me if I had any children and I revealed my pregnancy to her. She was very excited and proceeded to talk about babies and pregnancy until my taxi arrived.
17	29	Second pregnancy after previous successful pregnancy	No	High	The participant was at home by herself, she had arranged for her mother to look after her daughter. I felt she was immediately at ease, she sat cross legged on the sofa in front of me and talked very freely. After the interview she asked me if I had any children and I revealed my pregnancy status. She seemed a bit surprised and commented on how she had been talking in the interview as if I didn't know anything about pregnancy but I obviously did.

Participant Identification Number	Age	Brief obstetric history	Continued to drink?	Perceived socio-economic position	Details of interview
18	32	Third pregnancy after 2 previous successful pregnancies	No	Low	The participant was in her house on her own. She was very late into her pregnancy and so bounced on the birthing ball for some of our talk. She became quite upset when talking about her alcohol use in her first pregnancy.
19	24	Third pregnancy after 2 previous successful pregnancies	Yes	Low	At first the participant was at home on her own with her baby who was happy playing in a baby walker. Rapport was easily established and I felt the participant was openly talking to me about alcohol use and her previous drinking in pregnancy. However, her mother-in-law then walked into the house and I recorded that the interview 'fell apart'. The participant's body language changed and I didn't feel that she was comfortable with her mother-in-law's presence.
20	21	Second pregnancy after previous successful pregnancy	No	Low	There were lots of people in the participant's home during this interview. She was looking after her child and another child. Her partner was there and her partner's friend. For the majority of the interview, all the adults and children played outside. However, her partner and child did come in and I felt slightly pressured to wrap up the interview because I felt like I was intruding.

4.3 Theme 1: Understanding alcohol use in life before pregnancy

All study participants were asked at the beginning of the interview about alcohol in their lives pre-pregnancy. This initial questioning bore two emergent sub-themes; (1) alcohol and phases of life and; (2) views on alcohol in life in general.

4.3.1 Alcohol and phases of life

Study participants' narratives contained an understanding of alcohol use as a behaviour that held a shifting importance at varying stages in their lives. This frequently manifested in women positioning themselves as no longer being 'big drinkers'. They talked of the stage of life immediately prior to their current pregnancy as one in which alcohol did not hold as significant a role as it had in the past. For these women, their current lives as partners in stable relationships and / or mothers to young children excluded alcohol as a focus of life:

'I guess I'm not so bothered about alcohol as I used to be. It's just not something I need anymore.'

Participant 8

'From my kind of circle of friends everyone's kind of died off and now when we go out on the odd occasion 'cos we are like married and mums its like we cannot do it. We always laugh now but you know we never go out and when we do everyone is just such, like a lightweight. I mean I've got friends that are still single and they're always like, 'Oh great, it will be a great night out, party', but everyone who is like either married or a mum ...you're just not that bothered anymore, are you, about tottering around looking for a taxi at 3 o'clock in the morning.'

Participant 17

Importantly, discussions of the role of alcohol in life prior to pregnancy were linked to the ease with which study participants were able to reduce or abstain during pregnancy. This was often described in quite a straightforward manner as a directly proportional relationship, i.e. because alcohol wasn't hugely significant in their lives before pregnancy giving up or reducing in pregnancy was described as an easy task:

'I think it's the fact that I don't miss it. If I really missed it and thought 'oh, you know, I really need to have a drink', I'm not, you know, I know me own mind, I probably would have. But I just don't miss it.'

Participant 17

However, arguably this positioning of alcohol as relatively insignificant before and during pregnancy should be treated with caution. This is because sometimes the stated insignificance of alcohol was positioned within a narrative in which drinking appeared to play an important role. This apparent contradiction was personified by the account of participant 1. Despite discussing alcohol as something that was unimportant in her life, she later described the moment she had to tell her barman that she was pregnant in order to stop him pouring her usual drink:

'I don't think I like alcohol enough for it to matter...I had to tell the barman in our local pub where we go on Friday nights because he pours my drink as soon as I go in. So he had said 'vodka and red bull?' and I had said 'no, diet coke', and he kind of, like, looked at me and that's why I said I was pregnant.'

Participant 1

It is possible that some participants did not wish to position themselves openly as women for whom alcohol was important because this may have been viewed as socially undesirable. However, despite this caveat, it should also be noted that some participants did describe alcohol as an important and enjoyable part of life pre-pregnancy and thus it was not something that they wanted to give up during pregnancy:

'I did think about it, not drinking at all, but, I thought there no reason I shouldn't drink. And its something that I do enjoy and it is part of my life so, erm, so why cut out white bread if there's no particular reason to? So although I thought about it, I didn't see it as being something that I have to do.'

Participant 9

Finally, the necessity of considering the influencing role of alcohol in life before pregnancy was epitomised by the account of participant 18. A central part of her narrative was her experience of her first pregnancy, which occurred during her adolescence and was characterised by a strong need to maintain alcohol use in order to retain a social identity:

'I was on my own anyway, pregnant and on my own. I didn't want to be pregnant on my own with no friends as well, you know...'cos there is always that pressure, so if you just had it then people wouldn't be hassling you. Like I say I calmed it down but I still had to be there, I couldn't cut it out altogether, not like it was an addiction. Again, it's the social thing and it's to be seen to, to fit in with the people I associated with.'

Participant 18

She continually contrasted this with her experience of her current pregnancy, which occurred in her late thirties, a time in which she described alcohol as no longer playing a major role in her life. Thus abstaining during this pregnancy was a much easier choice:

'Alcohol doesn't play a big part in my life. It doesn't bother us, I'm not, you know, I don't not have alcohol at all when I'm not pregnant but it doesn't bother us enough to feel the need to have it. So cutting it out is no big issue. No problem at all.'

Participant 18

4.3.2 Views on alcohol use in general

Further to the discussions of personal alcohol use, discussions of pre-pregnancy drinking also generated talk of how women viewed alcohol use in society in general. This was largely communicated in a negative manner, with women discussing their disapproval of heavy alcohol use in particular:

'My opinion is, if you need a drink to go out and have a good time then that's quite sad really...There's nothing worse than waking up the next day and you don't know what you've done the night before, I think that's just horrendous...it's quite shameful. Growing up, people drinking to me, drinking was like you ended up in an argument or a fight, that's the way I see it and then living round here it is exactly the same. People sit all day on the Saturday drinking, seven, eight o'clock at night, they're fighting and the police are in the street. Every weekend.'

Participant 14

'My opinion has changed completely, alcohol. People who are drunk get on my nerves; I've got strong feelings about it anyway. I think people are stupid. My, I mean my partner drinks. He's not an alcoholic, he'll go out, again, once every couple of month or whatever, but I can't abide him when he's had a drink. I just, 'right, you, I'll make sure I'm in bed and you can stay downstairs because I cannot abide the smell'. I cannot, just everything, everything about being drunk annoys us. I've turned into a right prude.'

Participant 18

These conversations indicate that, within this study population, there was an undercurrent of an awareness of alcohol as a potential social or interpersonal problem. This was exemplified by participant 7; a critical part of her narrative of drinking before pregnancy was the need to explain that what society now problematised with the label 'binge drinking' was, to her, simply a normal and enjoyable social event:

'You know researchers say and come out and say this is binge drinking, it only happened a couple of year ago didn't it when it...says this is binge drinking, Britain's drinking excessive of the amount. And really like to that point, I've never really... I've heard debates on it with other people but you never thought of it as a problem until like you got that link, is it actually drinking excessive... err more than other people in the world. They say, if you're going out on a Friday, you'd have a couple of glasses of wine before you go out with your friends and then when you go out you have like a drink and then get shots down you once you are drunk and then after that like you've been to the town and, if you are still awake, you say 'ha'way (come on), let's go to mine'. So people say that's binge drinking but in an adult's point of view it's just, like, having a good night.'

Participant 7

In conclusion, intrinsic to the theme 'Understanding alcohol use in life before pregnancy' the need to contextualise alcohol use in pregnancy both with alcohol use pre-pregnancy and within wider societal norms in which alcohol use, and the potential associated problems, are increasingly considered to be of concern. The rest of this chapter will discuss women's narratives of alcohol use during pregnancy specifically.

4.4 Theme 2: The role of medical norms in women's narratives

This theme concerns instances in participant's accounts when 'medical norms' were discussed. These instances have been ordered into two sub-themes: (1) knowledge of and response to medical guidance and; (2) discussions of the role of medical professionals regarding alcohol use in their pregnancy.

4.4.1 Knowledge of and response to medical guidance

The way in which study participants discussed the medical guidelines regarding alcohol in pregnancy varied greatly. Generally, there was a lack of knowledge about the precise nature of the current UK guidance. Further, there was a sense in some women's accounts that medical guidance regarding alcohol in pregnancy was being actively ignored:

'Looking on the internet and looking at the guidance I think you've got to cut down to, no more than one to two a week is it or something? I can't remember how it works.'

Participant 8

'I got an 'Emma's diary' which is a week by week guide to your pregnancy. I think that gives you some information about eating and your big pregnancy book, which again, tells you about eating and stuff like that, and drinking I think. I haven't read it yet.'

Participant 1

For some participants, this seeming irrelevance was rooted specifically in the conflicting nature of the guidance concerning prenatal alcohol consumption. Critically, this conflict and the resulting confusion was seen to undermine the authority of the medical guidance:

'There's never, ever, ever been that sort of definitive evidence out there that proves that it's harmful. Not long ago they were saying a lot that I've seen that one glass of red wine a week is actually good for you and the baby and then they admit they don't actually know and you're like if they don't know and all these people have drunk when they've been pregnant and stuff and they're alright and they've got no evidence and stuff. It just doesn't, it doesn't sink in your mind as much as a tab (cigarette) does.'

Participant 7

Further, some women discussed the importance of making what they regarded to be an informed decision about their alcohol use in pregnancy. They felt that the way that UK guidance was communicated did not enable this because it focussed purely on what women should do whilst failing to provide any information about why. These women felt that a focus on 'why' would have made the guidance more salient for themselves and for others:

'So I've got half a page in a book saying 'don't drink' but it doesn't tell you if you do drink ... so not letting people make an informed choice. To justify why they are taking the view that they've taken, and they're sort of saying 'this is why we are telling you not to drink'. You know, so it means those people who, you know, do read it, then they know exactly why not and if they are having a stressful time they might think 'oh, I could do with a drink but I remember reading that, I won't.'

Participant 1

Conversely, some women talked of the changing medical guidance regarding alcohol use in pregnancy as evidence of welcomed medical progress:

'There's been more, kind of, thought put into it now than there was back then. But, I mean, like, where pregnancy is concerned there is just loads and loads of stuff that's changed obviously since 20 or 30 years ago. Cos I mean (husband)'s Mam ... she'll say 'oh you know we never had scans, you didn't know until the time came what was happening' and all that kind of stuff, erm so, it's not just the alcohol thing, everything's changed and that's, kind of, they're showing that, you know, that they recognise that so much has changed'

Participant 2

Nevertheless, even those women giving credence to medical guidance did not discuss it having a role in their decision about alcohol use in pregnancy. For example, alongside participant 2's discussion of the necessity of medical guidance, quoted above, is her admittance that she was not actually aware of what the guidelines stated. Critically, they did not seem relevant to her because she had already made the decision to abstain in absence of this information:

'You see, the things that I know about are the things that I've been, like I still wanted to drink tea. I've ended up buying de-caff because they say you can only have two cups, they recommend you can only have two cups of tea because caffeine, erm, there's a link, they don't know what exactly happens but there is a link between caffeine and early miscarriage.'

Participant 2

Seemingly, those participants that talked of the salience of medical guidelines did so because they provided, in effect, supporting evidence for their preconceived decision about alcohol use in pregnancy. This was particularly apparent in the accounts the women who had been pregnant before the UK Guidance changed in 2007. In the following quote participant 5 discussed the fact that she chose to drink in her first pregnancy (before 2007) because of the guidance at the time and yet was unconcerned that the guidance had changed for her current pregnancy:

'It was probably the guidance, 'cos I think I stopped drinking altogether when I first initially found out and then obviously from the advice, you know when I spoke to (midwife), I kind of thought, okay, well if that's the government recommendation, then I'm comfortable with, comfortable with that...Maybe the first time I might have been more concerned about it because it was my first pregnancy, I didn't know what to expect, erm, but now I think I would just do the same. And still have me one or two glasses of wine a week. Erm and I still feel happy with that.'

Participant 5

4.4.2 The role of medical professionals

For the purposes of this research, the role of health care professionals (in this study midwives and GPs) was defined as instances in women's accounts when they recalled any discussions they had had with health care professionals about alcohol use in their pregnancy. It is notable that these discussions did not feature heavily in women's accounts. Further, whilst recording the amount of alcohol consumed is a mandatory part of the initial

NHS antenatal booking appointment, study participants often stated that they had not received any further information or advice regarding alcohol use:

'She (midwife) didn't say anything to me personally about drinking, obviously I told her I like binge drinking, all weekend, every weekend and the amount I cut down.'

Participant 7

It is perhaps unsurprising that women who were abstinent in pregnancy did not recall receiving advice about alcohol as part of their antenatal care. Effectively, it could be argued that medical professionals did not feel the need to discuss alcohol with pregnant women who presented to them as already abstinent:

'You go through your notes and they say to you, they don't really ask if you drink. I mean, they're more concerned that if you smoke when you're pregnant than if you drink alcohol. I mean, obviously, as soon as I found out I was pregnant, and you're going to have your booking (first antenatal appointment), I don't drink by that point anyway, so I can tick that I don't drink any alcohol 'cos I know I'm not going to do it...nobody really said much to me when I was pregnant but that's just a case of 'Do you drink alcohol?' 'No.'

Participant 6

However, some women did recall moments in their pregnancy when they had received direct advice from a medical professional regarding alcohol use. Importantly, women did not discuss changing their alcohol behaviour as a consequence of these encounters. This was true both for women who were abstaining and those who had chosen to continue to drink:

'I know the GP said to me when I first went to the, to him, when I just found out, so I was like five and a half weeks or something, just back from honeymoon and erm I told him that I'd stopped drinking alcohol and he said 'well, there's no actual research to support that, you know, it could be a problem'. I said 'Oh, ok', I didn't realise because actually I guess I just assumed because all my friends that have been pregnant, they all just stopped. I think I just, even though he said that, I just feel more comfortable not having any at all.'

Participant 15

'The midwife said that 'I don't think you should drink at all' she said 'cos if anything happened to your baby you would never forgive yourself...but like, every pregnancy is different, you just don't know what's going to happen, just cos (previous child) was alright, it doesn't mean, like, so its better to just do what they say. I mean I know I'm not doing what she says about the alcohol because I think, one glass of wine when you go out, I don't think that's going to harm the baby really.'

Participant 16

The nature of the health professionals' relationship with the pregnant women appeared important, in some instances acting as a barrier to open and honest discussions about alcohol use in pregnancy:

'You never feel like you've got time to take your coat off and relax because you're conscious that there's a waiting room full of people and that they've got loads left to see... I defy anybody to write 'I binge drink once a week and I have 20 pints' because you're just not. Everyone's going to write 'oh 5, maybe 6'. You know, people aren't going to admit anything bad. You know, it's like going to the doctor and he says 'do you exercise?' 'well, I try and get out and walk and I try to go swimming with (previous child)'. That isn't 50 laps of the pool, it's vaguely getting wet and usually me hair doesn't even get wet, you know.'

Participant 9

From the accounts above, it appears clear that medical guidance was frequently not part of women's accounts of their drinking during pregnancy or was, at best, cited as a supporting argument for the decision she had already made. Further, participants reported that medical professionals frequently either did not discuss alcohol use in pregnancy or delivered advice in a confusing and / or contradictory manner, and thus this advice did not hold sufficient power to change behaviour. Therefore, it is argued that medical norms were often marginalised in favour of an understanding of alcohol use in pregnancy which focused more on social norms.

4.5 Theme 3: The role of social norms in women's narratives, *'It's what I've always known I would do'*

The importance of social norms (the rules and expectations of the social group) in influencing participant's alcohol use during their pregnancy was made apparent by the emergent concept within women's accounts that their decisions regarding their drinking were often not felt to be conscious. This was first indicated by the way that they discussed the moment of pregnancy recognition. These instances were coded as 'pregnancy as a catalyst for change' in women's accounts. Study participants would describe the time they first found out that they were pregnant as also being the point when they immediately knew what they would do about their drinking (i.e. reduction or abstention):

'When I did find out I was pregnant it was quite an...like 'Right, I've realised that whilst I have been pregnant and not known about it, I've been drinking at the

weekend, drinking quite a lot at the weekend' and as soon as I found out I was pregnant I thought right, I'll probably continue to have a couple of drinks but I'll go nowhere near as excessive as that I would before I knew.'

Participant 7

However, for the women whose pregnancies (either current or past) were unplanned or unwanted the moment of pregnancy recognition was described in very different terms. For these women, pregnancy recognition was discussed as a moment of shock and represented a large upheaval in their lives. Interestingly, alcohol was often talked of as being an 'emotional crutch', a way to help them cope with these emotions:

'You know if it's a planned pregnancy and you're doing everything right and you're taking your folic acid before you fall pregnant it's not an adjustment period. But if it's an unplanned pregnancy, even though I've been married for five years, in a stable relationship, good job, husband's got a good job, in terms of stability fine. This is an unplanned pregnancy and the adjustment period is really tough because it still rocks your world in a way, my whole life is going to be changed and I think my initial thought was 'I need to go to the pub'... I think initially, I think when I very first did the test I think I had one drink, erm, because it was a case of, you know, 'I don't know what I am going to do' and I was going out that day anyway. But then after I had, I don't even think I finished that drink I think I only had a little bit of it, and then I just thought 'no I'm not going to have it'. It was just a, I don't know, I don't think it was a conscious decision of I am going to protect the baby, erm, because on a personal level to be honest I didn't know what I was going to do, so I didn't think that, I just, I don't know, just stopped.'

Participant 1

'To be honest with you I didn't actually want, I didn't want kids to be honest. See I didn't want them... I fell pregnant with my first one and it was too late to like have a termination, because I found out later on and then the second pregnancy was just a total shock. I nearly died because I didn't expect it be positive because like we were using something and then like the first thing I'd done is I got out of the bath and I was like I'm going for a pint. I went to the (pub name) for a pint because I was like devastated to be honest with you.'

Participant 19

Despite the differences in the ways in which women described the moment of pregnancy recognition, their narratives were unified by the knowledge that they should at least consider their alcohol use during pregnancy before they became pregnant:

'It's (alcohol cessation) something that I've always known that I would definitely, definitely do, yeah.'

Participant 11

'I mean we're kind of at the stage now in our lives now where a number of our friends have had babies and you know it's kind of just a natural thing that's expected that when you're pregnant you stop drinking. I think its one of the ways that you know within our sort of peer group we recognise when people are pregnant because they stop drinking. And so I think that's something that's also expected by society, certainly in our kind of peer group it is. Erm, and so it wasn't a kind of conscious decision that I had to make because I always knew that when I became pregnant I would kind of stop drinking if you like.'

Participant 13

'It's just cos everyone else does it...I've always been, that is one thing, I've always known, you just don't have a drink when you're pregnant. It's just everywhere really.'

Participant 2

It is the concept of 'always knowing' that predicates the importance of social norms surrounding alcohol use in pregnancy within participant's accounts. In the absence of directly experienced and / or valued medical voices, as described above, women described learning in a subliminal manner that pregnancy incurred a need to change the ways in which they consumed alcohol:

'I was 20 when I fell pregnant with her, I'd already heard all the stories about how dangerous it was drinking through pregnancy and stuff like that and it's always at the back of your mind... everywhere, everywhere, you pick them up on a magazine when they have a story or, you know a newspaper, anywhere, the TV for example there's lots of things on the TV when, you know, documentaries things like that, doing studies about alcohol. Everything just rolled in over the years, it stays with you and it does.'

Participant 6

The strength of this social knowledge is underpinned by study participants' discussions of the fact that frequently the first time they were conscious of thinking about alcohol use in pregnancy was during the course of the study interviews:

'Just speaking to you for this it's made me think about a lot of things about the way I see it because some things I hadn't actually sat and thought about.'

Participant 7

'It's quite weird when you think about it because when you're doing it you don't think about it and then afterwards when I've sat and thought about it I probably shouldn't have drunk anything at all because I didn't with the other three...I didn't

really have to, to make any decision, it was just sort of the way it was. It's not something I've even thought about to be honest.'

Participant 14

4.5.1 Compliance with group norms

A tangible way in which these social norms were made apparent in women's accounts was the way in which they discussed their own alcohol use in relation to the expectations of their social network, i.e. friends and family. These instances were coded as 'group norms' and featured heavily in narratives. Often women would talk about compliance between their own alcohol use and that of other pregnant women they knew / had known:

'I don't know, I guess like every family member and stuff have always just not drank when they've been pregnant so it's always been the norm ... I think it's probably just a family thing and all of my family have always been pregnant and no alcohol. So I think it's just kind of an inherited thing probably so it's something that just stayed with us.'

Participant 3

'Yeah, I think, I think it would be a completely different matter if it had been drilled into me that you mustn't do anything like this during pregnancy. I think it would be completely different yeah. I think I would probably be a bit more... if none of my family had touched a drop and they were very much against it and everyone had healthy children, then I'd be scared of going against that grain, but whereas they have (continued drinking) and have still had healthy children then it means to me that it's not the risk that a lot of people believe it is.'

Participant 4

This compliance with the norms of their immediate social networks was frequently described as being almost a systematic and yet unconscious education in what was socially acceptable behaviour for pregnant women in terms of alcohol use:

'I'm not the first person ever in the world to be pregnant, it's happened for millions of years and growing up you always get these kind of, you know, like 'this is the way you should do it, this is the way you shouldn't do it' and it all just kicks in at the same time so it gets mad (crazy). You know, I felt like it was just all my instincts just pushing us.'

Participant 7

'The life experience to even just look around and see other people and think I would do that or I wouldn't do this. And to even just think about things whereas by the time I got pregnant I had quite strong opinions on what I thought was appropriate and what I didn't... we made our decisions quite quickly and easily just on previous

or prior knowledge. And previous conversations you've had when you've seen things or heard things on the news and stuff like that.'

Participant 9

However, participants did not always report straightforward compliance with the norms of their social network. Some women actively rejected the notion of being influenced by the behaviour of others. For them, it was very important to position themselves as individuals and, to describe their decisions about alcohol use in pregnancy as being highly personal:

'To be honest, what other people do doesn't bother me anyway, I wouldn't base my decision on what they choose to do cause what they do is what they do, what I do is what I do, you know, I'm not one of these that bounce off other people and go with the flow of what other people do, it's my decision.'

Participant 12

Further, for some participants their choices about alcohol use in their pregnancies had placed them in discordance with some of their immediate social network. Women's reactions to these instances were unified by the apparent need to place importance on the opinions or behaviour of the people within their social network that they considered to be the most valid. This was coded as 'listening to the voices that matter' within women's accounts:

'People are different though you know. Like, like my mum bless her she, and I suppose when she was pregnant with me and my brother there wasn't as much of a thing on not drinking but I mean they knew they couldn't, obviously she didn't drink heavily but she had, you know, her Guinness's and an odd half a lager every now and then so she's, you know she says 'oh you can have this' and 'you can have that' and you find people go 'oh are you not going to have one?'. And you think, well no I'm not, I mean everybody I, in my kind of circle of friends who's had babies has been the same. We've been very good really. I don't know anybody at all who drank during pregnancy. I don't know if that's just my circle of friends of if that's the norm now. I don't know'

Participant 17

'Everyone keeps saying to us like with us being pregnant this time, 'ah you can have a drink, you can do this, you can do that' and I just think oh I don't want any ... see I've only lived here for so long, so I don't really know what people have, like obviously 'cos the kids are all grown up and that and they're all saying oh well I drank with them and that and I just think um...I don't know like. I haven't known them long enough'

Participant 20

It is apparent in the differences between the two quotes above how women identified the 'voices that matter' varied. However, even in these accounts compliance with some parts of their social network was still evident. Noticeably, none of the study participants discussed feeling isolated from all aspects of their social network by their alcohol behaviour in pregnancy.

4.5.2 The role of a woman's partner in alcohol use during pregnancy

The role of the partner became an emergent sub-theme after the first study participant mentioned it when she was asked if there was anything else that she felt should be examined in the interviews:

'The only thing is if you're getting people's opinions I think you would get different people's opinions from how supportive partners were as well. I don't think it's just all about educating the pregnant woman when they go in, because if that pregnant woman is with a husband who drinks alcohol and is not supportive than that can also affect it... I dare say you would get couples who are very different in that way. Or very similar, which is not going to be great, so that they drink lots and then one falls pregnant and then they just carry on basically. Yeah, I think your partner, if he's around, erm, can play a big part and you can be very impressionable.'

Participant 1

Despite this, many women reported that their partner did not play a role in the decision about alcohol use in pregnancy:

'My way or no way. No. he didn't come into it. That's what I wanted to do and I was doing it and nothing he said or could have said would have changed it. I mean he's been supportive. You know, he doesn't go on, go on have one or anything like that but he didn't, he also didn't say I don't think you should drink, you know. He hasn't really had an opinion on it. To be honest we've not really...never really spoke about it.'

Participant 18

Further, as indicated in the above quote, women sometimes reported not discussing their alcohol use with their partner. This did not seem necessary because they assumed that their partner held the same views as them. It is arguable that within this assumption lies further evidence for the strength of the shared social norms surrounding alcohol use in pregnancy:

'I think he just thinks you know, you're pregnant, that's it, you know. I'll have to ask him about that, would you mind if I tried? See what he says.'

Participant 17

Perhaps as a consequence of this presumption of a shared understanding, none of the women interviewed discussed being in conflict with their partner about their drinking. Indeed, such a dispute may have had the power to cause women to change their alcohol use:

'It may well have made me decide to stop drinking altogether. At the end of the day it is his baby too. Erm, it's difficult to imagine because it's not the decision that we've come to but erm yeah I mean you'd be less, a lot less comfortable to a drink now and again if he was very against it definitely.'

Participant 13

Therefore, it is possible that the role of the partner was more complicated than the above accounts of partner passivity implied. Indeed, when women discussed their partner what sometimes emerged was a narrative of the role of alcohol in their relationship. In a circuitous manner, this role influenced the way in which participants thought of alcohol use in pregnancy:

'Plus my ex as well he used to go out a lot as well so it would be like I would go out with him and like meet up with my friends and his friends and but like I'm not in that relationship now so its like I'm in a new relationship where he doesn't drink and he'd rather go fishing more than anything so it's like I think he just does it. He'll just say to us do you want some cans just to keep us happy really... When I was with my ex I was just wild. Constantly going out and just not bothered and this time round I'm like, in fact I don't think, two year June was the last time I went out drinking and like if I did drink it would be in the house so I never, ever go 'out' out and like I always sit in the house and that I just can't be bothered anymore and (current partner) will say do you not want to go to your friends or do this and I'm like I cannot be bothered tonight.'

Participant 19

'You know the stress of the partner and stuff when you're pregnant and that, it (alcohol) can help for even us two, if we went to the pictures (cinema) and went for something to eat. Obviously he's going to keep on drinking whilst I'm pregnant, he's not going to stop it, so I think it's nice to actually be able to still share that where I'll go and have a couple of drinks together, because it makes, it keeps us close as well rather than him feeling guilty... Because he'd be like 'oh well, you don't think you should drink' and I'll be like 'well get yourself away, go out' and he'd be like 'oh no, because I feel guilty because you're stuck in the house' or whatever. I think it's nice to actually have that like, like region, like that fair ground like scene where we both go and I'll have a couple of drinks, he'll have a couple of drinks and just, then I'll go

with my mates, go somewhere else, drink soft and he'll go with his pals somewhere else you know.'

Participant 7

4.6 Theme 4: The discourse of good motherhood and the creation of stigma

For the purposes of this analysis, the discourse of good motherhood is understood as a socially generated moral framework of ideals and behaviours necessary for a woman to be considered a 'good' mother. The need to consider good motherhood as an analytical concept within this study was expounded by the apparent dichotomy between two related sub-themes; 'baby comes first' and 'keeping who you are', both of which featured regularly in the participants' narratives. Further, women often discussed prenatal drinking as a stigmatising activity and the roots of this social censure lay in contravening the unwritten rules of good motherhood. Therefore, this theme builds upon, and is further evidence of, the strength of the social norms surrounding alcohol use in pregnancy.

4.6.1 Baby comes first

This sub-theme is characterised by the desire articulated by some participants to place what they considered to be the needs of their baby above their own needs. Simply put, 'baby comes first' provided the reasons why alcohol use in pregnancy was not acceptable in both their own pregnancies and that of other women:

'It's not just your own life. You know, you are responsible for somebody else from the minute it, the baby is conceived, you know, and to potentially cause harm which you can prevent I think is just selfish.'

Participant 18

Baby comes first should be understood as more than risk avoidance to maximise the possibility of a healthy baby (this idea is captured within the sub-theme 'better be safe than sorry' discussed later in this analysis). Instead, baby comes first is characterised by study participants' use of moralistic language. The idea of putting your baby's needs first and denying your own wants within pregnancy was considered a defining characteristic of a 'good mother'. Abstention from alcohol was talked about as a logical and simple way of complying with this characteristic. This is typified by participant 12, who consistently referred to the need to abstain from alcohol in pregnancy as being rooted in 'morals and standards':

'It's all about having morals and standards I think as well. Plus the fact of the health, I don't want my baby, you know, affected by it it's just I want it to, you know, have a proper start, if it came out with any defects or anything through alcohol and that was my fault, I'd never forgive myself. So alcohol, I don't know, it's a hard question you're asking because to me, I think it's just more about morals and standards you know.'

Participant 12

The narrative of participant 6 was also highly illustrative of the importance that abstaining from alcohol held in complying with the ideals of 'good' motherhood. She talked about the picture she had of being a mother from a very young age and always knowing that alcohol (and smoking) had no role in that picture:

'Even when I was young I always knew like, 'when I have a baby I'm going to call him this, that, that'. Then you know then well I'm not going to drink and I'm not going to do anything to damage the baby and 'cos I smoked when I was young it was a case well I knew I'd always give up smoking if I ever fell pregnant.'

Participant 6

This emergent concept of 'good' mothers being those that placed the needs of their children above their own was not limited to pregnancy. Participants talked about pregnancy as only one part of the mothering role and 'baby comes first' extended into later aspects of their lives as mothers. Even though their children were not put at biological risk of harm by a mother's alcohol use when she was no longer pregnant, alcohol use and good mothering were frequently seen as incompatible:

'Isn't that the way it should be though? Your baby comes first before anything that you want or need; it's the way it is. It's like saying, your child needs a new pair of trainers, what are you going to do, are you going out and buying a new pair of trainers or go out and buy a bottle of alcohol. You have, you don't have that choice, you know your child needs her trainers, you don't need the alcohol. Do you know what I mean? That's the way it should be.'

Participant 6

This incompatibility of alcohol and motherhood was not only expressed by women who did not drink in pregnancy, it was also expressed by women who felt that their past involvement with alcohol use had prevented them from being the mother they wished to be:

'See because a lot of my friends were like single and they didn't have kids where I had them young so they were out and I was stuck in and it got us depressed and that a bit so I just went and done it. But then I realised, like now I realise that my

little one suffered because I was late for school in the mornings and if we went out on the weekend I was tired and slept in.'

Participant 19

'...drinking until I couldn't drink anymore sort of thing and that was when I was aware I was pregnant, that's' what makes us cringe, you know, makes us feel sick at the thought. I knew, I knew I had a baby inside us and I was still throwing drinks down me neck... I drank in my first pregnancy, I didn't drink in my second. I've smoked in both pregnancies. I haven't smoked in my third. Each time I've learned something and moved on from it...some people don't move on. They just carry on, continue and the baby that's growing inside them has just got to fit in with their lifestyle. I think it's wrong. If their lifestyle's not ideal with drink, drugs, alcohol whatever, they should make the sacrifice even if it's just for the nine months until they've had the baby.'

Participant 18

It is perhaps unsurprising that 'baby comes first' was mostly apparent in the accounts of women who had abstained from alcohol use in pregnancy. However, participant 7 was a woman who chose to drink in pregnancy and was able to marry this choice with the ideals of subjugating your needs to that of your baby. For her, reduction in alcohol consumption acted in the same way as no alcohol consumption did for women choosing to abstain. By lowering her consumption, she felt she was putting her baby first and thereby proving herself to be a good mother:

'I think if I can adjust all them things in my life, change my life for the baby to make it healthy, then it is going to make it happy in the future because I know I've took them changes in order for the bairn (child) to have the best possible start in life, and when it is here I want it to continue to having the best possible start in life...I'm going to show everybody and myself that I can actually be this person...like be the ideal, obviously mother for the baby.'

Participant 7

These accounts indicate that the women for whom 'baby comes first' was an important part of their narrative held themselves and others to a moralistic ideal of mothering that is characterised by fairly circumscribed thoughts that alcohol should *not* play a role in pregnancy. This contrasts strongly with the ideas described within the sub-theme of 'keeping who you are'.

4.6.2 Keeping who you are

This sub-theme emerged from the narratives of the participants that chose to continue to consume alcohol. These participants felt that they still existed as a person in their own right throughout their pregnancy and that drinking was a way in which they were able to assert their own needs and desires:

“Cos everyone likes a drink don’t they? Whether you’re pregnant or not you still like a drink, ‘cos your feelings are still the same apart from your hormones.’

Participant 16

The defining feature of this sub-theme was the need that these women felt to maintain a sense of their own identity within their pregnancy. It is perhaps counter-intuitive that this idea was crystallised by the views of two participants who were not themselves claiming the need to maintain their identity within pregnancy. The first participant talked about her willingness to allow her identity as a woman to be overcome by her identity as a pregnant woman and how not drinking was an extension of the latter:

‘I feel almost quite, I think you feel almost special in a way like, a bit privileged that you’re actually pregnant and not drinking is, it’s just a part of that.’

Participant 15

Further to this is an idea of a temporary exchange of identity discussed by participant 9. She acknowledged the loss of the part of herself that not drinking in the first 20 weeks of her pregnancies represented. However, the effect of this loss was ameliorated by its transient nature; you are not pregnant / the mother of small children forever:

‘I’m going to get quite deep here I suppose but you lose part of who you are because you want the person you were, who would have gone to every night out and would have been a stalwart kind of thing...I just think it’s one of those things that you do for a period of time.’

Participant 9

Whilst ‘keeping who you are’ was defined by the need to maintain your own identity during pregnancy, it is to be acknowledged that this need took different forms with different women. For some highly-educated women this was expressed as empowerment to question medical authority and to make your own decisions for your pregnancy. This was strongly evident within the discourse of participant 1:

'I think if you are confident in your own ability, in your own judgements, and again you are always wary of sounding snobby, but it, you know, I'm a professional person who helps guide others through really difficult traumatic times. So if I can't make a decision which is in my own best interests to have alcohol during pregnancy there is going to be something wrong with me.'

Participant 1

For other women the need to maintain a social identity during pregnancy was felt keenly. For participant 7, socialising and sustaining her relationships with her friends was vitally important to her and alcohol was a key part of this:

'It doesn't matter if you are a drinker or a non-drinker, you do need your friends there throughout it as well as your family and I think if they, perhaps, still have that social part of, it's great because you're not sitting talking about how much your boobs hurt and stuff like that and how many times you've been sick. You're actually sitting in a bar having whatever drinks and you've got that nice social catch up as well...I think that's great because I'm part of that, do you know what I mean, and I think it keeps everything normal. As normal as possible through your pregnancy.'

Participant 7

Another strongly felt reasoning behind the desire for identity in pregnancy was that in order for a pregnancy to be both successful and a positive experience, both the mother and the child need to be happy and healthy. The physical and emotional needs of mother and child were seen as a continuum. For these participants denying their own needs in pregnancy, in terms of alcohol consumption, would have placed them in a position of stress and it was felt that this could not have been good for the baby:

'I think it would drive me mad if I was doing everything for the baby. I think it would drive me absolutely beserk (mad) and that has an effect that can't be any good for the baby. If I'm happy in me then the baby's going to be happy and I think that's, that's what I'm more concerned about, definitely. I'm not going to deprive myself of anything or make myself unhealthy in anyway because that's just going to have a knock on effect on the baby...Just sensibly letting that baby bit by bit in, without it just becoming this overruling power that like I don't really have much control over.'

Participant 4

'It's one of those things that I feel like I have to do in moderation because I don't want to alter my lifestyle to such a massive extent that I'm completely miserable for nine months.'

Participant 14

4.6.3 The positioning of the pregnant woman within the ideals of good motherhood

It would appear that the sub-themes discussed above form opposing 'points of view' when considering the issue of alcohol use in pregnancy. On the one hand, there are socially generated rules of good motherhood and the associated view that alcohol has no role within the pregnancy of a 'good' mother. Juxtaposed to this is the notion of maintaining who you are in pregnancy and alcohol being a means of achieving this. However, these arguments are not, in fact, as divergent as they first seem. Key to understanding this is to remember that, as described above, women who professed the need to maintain their identity often did so because they viewed their pregnancy and themselves as a continuum. This synergistic relationship meant that what was good for one would, within reason, be good for the other. No pregnant woman in this participant group expressed the need to keep her identity at the expense of the health of her baby. Instead, those who voiced the desire to maintain their own identity were doing so as a way in which to ensure their own 'good motherhood'. This was exemplified by participant 1; throughout her interview she used the analogy of pregnancy being a seed and her body being the soil in which this seed grew and flourished. Continuing to consume alcohol was one way in which she ensured that her body (the soil) was healthy:

'If you, you know, if you put good soil around it (the seed), then you are going to look after it, it's gonna do well. If you don't, then it's not. And it's the same for your body I think. Your mental health and your emotional health and physical health, everything, is just as important for your baby. If you get stressed naturally you're anxious, so therefore your heart beats faster or whatever, that's not necessarily helpful. It's the whole thing. Definitely the decision to drink alcohol is more I think about me looking after my body, I am not necessarily thinking if I drink alcohol my baby is going to be born and I am going to be concerned about the health or what damage I may have caused to the child. Does that make sense?'

Participant 1

It should also be noted that quotes from participant 7 have been used to illustrate both 'baby comes first' and 'keeping who you are'. This is because she simultaneously espoused ideals of good motherhood and maintaining your identity when pregnant. It can therefore be argued that the over-arching analytical concept discussed in this section is not an antagonistic relationship between ideals of good motherhood and personal identity within pregnancy. Rather, it is ideals of good motherhood and the role that personal identity plays within this. All interviewed women wanted to feel that they were good mothers to the child

developing within them and they all wished to be seen as good mothers. However, the critical difference was how they positioned their own needs within the discourse of good motherhood. For some, suppression of their own needs and resulting abstinence for alcohol was necessary to reach the goal of good motherhood. For others, allowing themselves an identity in their pregnancy, and thus alcohol consumption, was a fundamental part of how they felt they were becoming good mothers.

4.6.4 'It looks terrible'; discussions of alcohol use in pregnancy as a stigmatised activity

Women's narratives were heavy with accounts of judging other pregnant women and both the fear and reality of being judged themselves. As previously stated, these accounts of judgement were constructed around the ideals of good motherhood. At the core of the narrative of judgement was the fear that the consequence of being seen to drink alcohol in pregnancy was that they would also be viewed as a 'bad' mother, a mother that was not capable of taking adequate care of her child:

'I've actually seen people down the town when they've been mortal drunk (very drunk) and they've got a bump like that and they're trying to get into nightclubs and you think to yourself not only 'ee, if something happens to her like', you think, 'what kind of life is that bairn (child) going to have if that Mother is doing that now?'...That's one thing I have started to think about already and especially when I'm bigger, I don't want to, I don't for myself want people to actually see me like that because they see me as a bad mother even before you've had the child.'

Participant 7

'You don't want to see pregnant people falling over drunk, there's something not quite right about that. You know, I think people assume because they are not taking care of themselves then they wouldn't take care of their child.'

Participant 1

Frequently, stigma was made apparent in participant's accounts when they talked of witnessing alcohol consumption by pregnant women that they did not know:

'I've been out and I've seen people pregnant. Going into town and I know what I've thought then....I saw a lass (girl) who was heavily pregnant out drinking and they ended up in a fight in the bar and I'm sitting there thinking, oh my God, do you know what I mean, if she's that far pregnant she shouldn't even be drinking let alone having fights in town, you know it's dangerous and it's not very good is it?'

Participant 6

'I've seen this woman in the town the other week and she's pregnant and she's walking along with a can of cider in her hand and that. I just thought, eeh my God, she looks ready to drop and everything and I was like the clip (poor / embarrassing physical appearance) of her and that and she looked a right clip and just walking around the town with a can in her hand.'

Participant 20

However, accounts of social judgement were not just limited to unknown pregnant women. Additionally, study participants often talked of judging pregnant women within their immediate social networks, i.e. friends or relatives. Participants who were abstaining tended to talk of judging women who were drinking at any level in pregnancy. In comparison, participants who had continued to drink during pregnancy discussed judging women who were consuming more alcohol and / or in different drinking patterns to their own. Thus, these accounts detail a stigma that is confined to their own accepted norms surrounding alcohol use in pregnancy. What study participants expected of themselves, they also expected of others:

'She has still been drinking. Just one glass of wine or whatever and it narked us straightaway. It did bother us, I think you shouldn't be doing that and she would be like 'oh it's alright and I put lots of ice in it' and all of this stuff, but it did bother us straightaway that she was doing that. She was like 'but they say you can' but I was like 'well yeah, they might do, but as far as I'm concerned that's not the point.'

Participant 2

Study participants also talked of fear of receiving judgement. Often, this fear was palpable enough to have been incorporated into the reasoning to not drink at all in pregnancy or to not drink in public when they were visibly pregnant:

'Probably one of the things that would prevent me and may well, I don't know, prevent me from drinking in the future when I'm more obviously pregnant, might be society's perception. I mean I've got no problem at the moment with going to a restaurant and ordering, you know, we have half a bottle of wine and I'll have half a glass, I don't know if I'll feel quite so comfortable doing that once I'm 30 weeks pregnant. I think there's probably like I say, because of society's perception, because I think its looked upon as you're either drinking or you're not drinking and I think they obviously have no concept of how much or how often you're drinking.'

Participant 13

'I've, this is going to sound a bit, no its not, I don't, I wouldn't want people to see us drinking. Do you know, I wouldn't want people to think 'Oh God, look, and she's

pregnant'. You know, with a bump and drinking, that's always in the back of my mind as well.'

Participant 17

In fact, very few study participants claimed that they had not passed judgement on other pregnant women because of alcohol use. However, even in these, arguably more permissive, accounts the bounded nature of the stigma was evident:

'I don't judge, you know. Maybe if I saw them rolling around the floor, out of their head, then I would judge, 'cos I kind of think well that's silly, you know. But I don't think, you know every woman's different, every pregnancy is different, and okay yes you have a recommended amount that's considered okay. Then you don't know whether that woman's, the glass of wine she's just got in her hand, whether that's her first or whether that's her fifth, you know, you don't know. So, erm, I never judge anybody so I kind of thought, well, I felt ok having one myself cause I thought, you know, nobody should really be thinking the same about me.'

Participant 5

It is interesting that accounts of judging other pregnant women were often appended with an acknowledgement that they felt that openly judging others was an unsavoury act.

Paradoxically, it appears that the social norms which lend themselves to social judgement also dictate that 'being judgemental' is not, in itself, socially desirable:

'...it's not my family or friends, you know, they can do basically what they wanna do, it's their own life...And another thing you said about, I don't judge, I don't judge pregnant people. I do, of course I do, but I keep my opinions to myself with it, I do judge 'cos you know yourself in society everybody's judging everybody, regardless you know, you can't stop it.'

Participant 12

'All the people I was sitting with and 'have you seen, have you seen that girl over there? She's drinking, she's smoking and she's pregnant!' and you think 'well, that's your choice' but to me that's quite ignorant, you know, I sound horrible!'

Participant 17

Further to the fear of social judgement, study participants that had continued to drink during pregnancy reported occasions when they felt that they had themselves been openly judged by others for their behaviour:

'She actually turned around and says to me err a few weeks ago, like when I, like I had a can (beer) and (partner) goes 'Another one?', she went 'No that's your limit, that's a unit' and I says 'Well then calm down, shouting', she went 'I wouldn't drink

when I was pregnant why should you drink, its not hard' and all that... I turned around and said 'There isn't no evidence that shows that that will harm me if I have more than one'. She said 'Aye (yes), well you know', didn't have a go at us (argue with me) but pointed out that it was like, like that's her... like that she didn't really basically think it was good that I should be drinking whilst I was pregnant ... she says 'Well you can do what you want but that's my niece or nephew inside of you'.

Participant 7

It is notable that women's accounts of judging and being judged in pregnancy were limited to smoking and drinking alcohol and were not apparent in their discussions of other potential risk factors. Arguably, this echoes the hierarchy of risk, discussed later in this analysis, alcohol and smoking were perceived to be more risky and, thus more stigmatising, activities than food:

'I do think alcohol is an area where people have opinions, quite strong opinions as well. From the 'it isn't going to hurt you is it? Right the way through to 'you shouldn't be out at all and you certainly shouldn't be having a drink'. Whereas like eggs or salad or steak, nobody's going to really care about particularly. But alcohol, people do have opinions.'

Participant 9

4.7 Theme 5: The understanding of and reaction to alcohol as a risk in pregnancy.

This theme describes how the study participants discussed the risks posed by alcohol in pregnancy and the nuanced ways in which these ideas of risk were influenced in individual accounts. In particular, as with the discourse of good motherhood, it is necessary to view risk narratives as emergent from the social norms surrounding alcohol use in pregnancy.

4.7.1 The understanding of alcohol as a potential risk in pregnancy

An idea of alcohol as 'vague risk' emerged from the accounts of the women interviewed who had chosen to continue to drink. Often, unwittingly they discussed their alcohol use in language that indicated that they were actually drinking above the recommended maximum amount without knowing it:

'She (midwife) said, erm, she went how much are you drinking? And I went like, 3 or 4 units, which in my mind would have been like I don't know, like 3 or 4 bottles?'

Participant 7

In addition to confusion over the actual amounts of alcohol consumed was the importance of understanding how women comprehended their own alcohol use. For some women,

drinking during their pregnancies was so markedly different to before pregnancy that it felt as if they were no longer drinking and thus that alcohol related risk did not apply to them:

'I think you know in general terms to me it feels like I've stopped drinking, I mean although I've had 6 / 7 drinks over the past 12 weeks to me that's, you know, essentially compared to what I was doing before I've stopped drinking.'

Participant 13

Further, understanding of alcohol as a risk in pregnancy was often not based upon knowledge of the teratogenic effects of alcohol. There was also no consistent mention of FAS or FASD within the interviews. This lack of knowledge did not seem to be related to the socio-economic positioning of the women interviewed; indeed it was evident across all participants irrespective of their social class:

'I know nothing of the potential dangers, I don't know what it can do to a baby, nothing at all, I don't know anything that it can do to a baby to be honest with you, nothing.'

Participant 15

The quote above is from a woman who knew that she was largely ignorant of the risks posed by alcohol during pregnancy. Not all women felt, or admitted to feeling, so uninformed. These women often discussed alcohol related risks in vague terms or the risk was misunderstood to be akin to that posed by illicit drug use during pregnancy:

'I mean you hear about the babies that are alcohol dependent it's like drug dependent, if you're taking drugs.'

Participant 6

'...alcohol passes through and can harm your baby and the development and everything.'

Participant 3

Rather than focus on pregnancy specific risks of alcohol, some participants articulated alcohol use in pregnancy as a general health risk. Alcohol wasn't considered to be good for the mother in her non-pregnant life; therefore it was 'common sense' that it couldn't be good for her or her baby during pregnancy:

'It's common sense that alcohol is not the best thing for you and it's you know, it can, it can make you feel sick ... that doesn't seem right...it's not a healthy, you

know, thing to do...so, you just need to try and be as healthy as you can and that's the common sense thing.'

Participant 15

Critically, within women's discussions there was a strong sense that knowledge of alcohol as a teratogen, and thus understanding of alcohol as a risk in this medical sense, was not important to them. Rather, emergent discourses of risk were indistinguishable from the social norms surrounding pregnancy:

'Well to be honest I haven't even read the book (Department of Health Pregnancy Book) because I just, I just, there's, there wasn't anything for me to find out or decide, I just decided I wasn't going to be drinking.'

Participant 15

'That's not why. I suppose I chose not to drink because I don't want to ... I haven't done my homework on it to make a decision if you know what I mean.'

Participant 17

4.7.2 Reactions to alcohol related risk in pregnancy

All study participants had at least thought about the ways in which they were consuming alcohol in their pregnancy and they altered their drinking upon pregnancy recognition, i.e. through reduction or abstinence. These two different patterns of drinking were characterised by starkly opposing responses to the idea of alcohol as a risk in pregnancy. These responses are captured within the sub-themes of 'everything in moderation', voiced by women continuing to drink, and 'better to be safe than sorry', voiced by women abstaining.

Better to be safe than sorry

Better to be safe than sorry is an in-vivo term that, as stated above, is characterised by the need to avoid all alcohol related risk in pregnancy:

'It's always at the back of your mind, you think, if I have that one drink, is it going to harm the baby? Is it just, even if it is just one, it could be that one that does it. Do you know what I mean?'

Participant 6

Women who felt this way talked about alcohol as an easily avoidable risk. Key to this ease of avoidance was the nature of alcohol use, only women who were dependent on alcohol were

viewed as having a legitimate reason for finding it difficult to give up. Further, it was frequently stated that pregnancy was a finite and relatively short period of your life. Pregnancy was a different time, in which different rules applied, but the fact that it only lasted nine months made it more than achievable to comply with these new rules of risk avoidance:

'You choose to have a drink, if you can't give something up for nine months just to drink then you've got a problem and you need to go see somebody and get some counselling and get some alcoholics anonymous, you know.'

Participant 15

A further reasoning behind the need for complete avoidance of alcohol related risk was a strong sense that it was impossible to properly judge what levels of alcohol were actually being consumed at any one time. Units of alcohol were not easily understood and / or easily transferred into real life drinking events:

'You know, that alcohol, you can drink so many units, but then again, how many, you don't actually know how many units you are drinking do you? So therefore, you can't actually measure it so there's no point if you don't know your safe limits.'

Participant 6

Everything in moderation

For the purposes of this analysis, everything in moderation is defined by the belief that total risk avoidance, in the form of abstinence from alcohol during pregnancy, was not necessary. This was because, despite the general lack of knowledge of the potential teratogenicity of alcohol, some participants articulated an understanding of the different levels of risk posed by different levels of consumption. The women who continued to drink in their pregnancy all perceived themselves to be doing so at low levels and, critically, they did not think that these drinking patterns could cause harm to their baby. Indeed, some actively rejected the concept of 'risk' as applied to their drinking in their pregnancy:

'I just don't think there's any evidence to suggest that me having a white wine spritzer once a month is going to give, is going to produce any harm for the baby...I don't think there's any evidence to suggest that. I think, yes, I could easily cut out alcohol for the whole nine months, I wouldn't find it particularly difficult...I just think that, I just honestly don't see it as a risk to the baby.'

Participant 13

For some participants, 'everything in moderation' was described as what felt like the natural thing to do. Abstaining would have felt like a jarring, conscious decision and would have incurred a feeling of pressure and worry during their pregnancy:

'...it's nice to have a glass of wine at the end of the week erm, and it's just part of sort of, and you know if you go out for a meal, it's all part of enjoying the meal as well. Erm, and that's, yeah, I probably would have kind of you know been told like, ah should I have a glass of wine or should I not, should I have a glass of wine, you know what I mean. It probably would have been very kind of, trying to make a decision...As opposed to be relaxed about it.'

Participant 5

Trying to prevent pregnancy from becoming a locus of worry extended into a belief that pregnancy had become over-medicalised. Participants talked about being subjected to too many health messages that were often contradictory. Further, they argued that throughout history it was the norm for healthy women to give birth to healthy babies. Therefore, not only were many of the health messages confusing but they were also frequently deemed unnecessary. This 'information overload' led women to feel that they simply couldn't conform to every risk message, and instead they voiced the need to listen to themselves and their own instincts:

'You know going back through history, a lot of this evidence wasn't out there at all, and pregnant women were doing absolutely anything they felt like and what they normally did and still there wasn't a huge proportion of you know abnormalities coming out at birth...there's just so much sort of information to protect yourself with that you could spend your whole nine months trying to protect yourself from these things that have got the tiniest percentage of happening.'

Participant 13

'When we went to the doctors and the midwife was saying 'don't drink anything before 12 weeks' and that was totally the opposite to what I'd read previously and I think it was that point, and I was like, well there's contradictory things with the medical profession then no-one knows. I'm just going to kind of go with what I feel, there's nothing else you can do.'

Participant 4

A further dimension to 'everything in moderation' is to understand that women only ever discussed drinking during pregnancy as a firmly bounded behaviour. The acceptability of drinking was contained within strict rules regarding the quantities of alcohol consumed:

'...I feel that you wouldn't go out and have more than one drink when you were pregnant because you would know it was going to lead to you being drunk and the effect that would have.'

Participant 1

'We were at a barbeque across the road Sunday...I had four cans of lager, but all mixed with lemonade. And that was all, that was all I drank. There was loads, I mean absolutely loads of alcohol there and I could have drunk if I wanted to but I had four cans of lager and that was from one o'clock in the afternoon and we left there at ten, so I think that's quite good actually. Compared to the state of some people who were like falling all over and stuff.'

Participant 14

It is perhaps not surprising that women discussed drinking during pregnancy in this way given that, as stated above, 'everything in moderation' centres on the differentiation between high and low levels of consumption. However, it is important to note that the acceptability of drinking during pregnancy was not limited to ensuring that only small amounts of alcohol were consumed. Rules regarding the place of drinking and the reasons for drinking were also evident. Women discussed not drinking 'down the town', the city centre, because that environment was seen to be uncontrolled and prone to violence and accidents. They also discussed the need to only drink when there was a specific point to the drinking, i.e. social events, and not just for the sake of it:

'My friend's birthday is coming up next week and she wants us to go out. I've told her I'm not going down the town. I told her not just because of us not drinking, because of the fact that someone can knock and damage me.'

Participant 7

'Well don't just drink for the sake of it, like, if I'm going out I would have a glass of wine but, like, then when I wasn't pregnant I would just like have a bottle of wine just in the house to relax but I feel like when I'm pregnant I just drink when I go out, like when I'm socialising with people.'

Participant 16

Further to discussing how drinking should be constrained during pregnancy, some women discussed mechanisms of self-moderation, i.e. specific ways in which they were able to ensure that their drinking remained within the bounds of acceptability that they had set for themselves. For participant 9, a mechanism of self-moderation was fundamental to her decision to drink alcohol past 20 weeks gestation but not before then. After 20 weeks she

felt that the baby's movements could act as a reminder to her not to drink too much in any one occasion:

'I feel as if you're more conscious of what's going on. So I know the baby ...how the baby moves, reacts, like if I have a hot curry the baby goes a bit mad to the effect of that. And I think it's the same with alcohol. If I do have a drink the baby becomes more active and I'm very conscious of that. So whilst I will have one or two glasses, I'm very conscious that after the second glass the baby's doing backflips virtually. And you think so really that it is having an impact on the baby already. And that's what makes, because I think by that time you think 'I've had two, I could easily have a third'. You know, it's really easy to think the next night 'Oh well, I'll finish the bottle of wine that I started'. But I think that's the thing where you become more conscious of it. Whereas when it's trying to kick and you can't feel it and you're not very big you could be drinking all sorts and doing all sorts.'

Participant 9

The rules for drinking discussed here are best viewed as a personal mirroring of the rules of a wider social acceptability of drinking during pregnancy. Again, the close analytical link between discussions of risk and social norms is highlighted.

The interplay of the narrative of good motherhood and response to risk in women's accounts

During the analysis of the transcripts connections were noted between the descriptive themes 'keeping something of yourself' and 'everything in moderation'. These themes were frequently connected in participant's accounts. Indeed, for some women they were not simply co-existent parts of their narratives, instead their meanings were connected. Drinking at moderate levels, and accepting the ideas of risk behind this, was a method by which they kept something of themselves and thereby ensured a sense of personal identity in their pregnancy:

'I think you can take it all to extremes or you can take all the information, kind of try and come out of it with some sort of moderation where you feel like you can fit into your lifestyle and without taking an undue degree of risk.'

Participant 14

'You just try and find something that makes the balance between what makes you happy and what you know is dangerous and just trying to find somewhere in the middle there, and so that's exactly what I do middle ground.'

Participant 4

However, a similar connection was not evident between 'better be safe than sorry' and 'baby comes first'. In essence, the need to avoid all alcohol related risk during pregnancy did not appear to be governed by ideals of good motherhood:

I: ... some women I talked to about it who have said the same, they've decided not to drink in pregnancy, for them it feels much more like, it feels much, as though the baby comes first. Is that how it feels for you?

IV: Erm...to be honest, it's hard to actually imagine there's a baby in there right now because I've not seen anything. I don't have anything tangible, I don't look pregnant, I erm., like I say I haven't seen anything. Erm, and so I don't really have this massive awareness that there's a baby in there at the moment...I mean the baby is very important and erm I think I'm just more thinking about what right now, I'm more thinking about what I'm doing for me and erm...my own body so that it would have a knock on effect.'

Participant 15

4.7.3 Influences on reaction to risk

Several distinct factors served to influence these responses to risk characterised by 'better be safe than sorry' and 'everything in moderation.' It is important to note that whilst these factors were commonly reported across interviews, how they were incorporated into women's individual narratives, and thus appeared to influence the reaction to risk, was highly individual.

Previous pregnancy experience

Previous pregnancy experiences were often interwoven into participant's accounts of how they reacted to alcohol as a risk in their current pregnancy. This was not limited to those women that had already given birth. Difficulty getting pregnant and / or maintaining a healthy pregnancy were equally potent accounts of past pregnancy experience.

For some women that had consumed alcohol in both current and past pregnancies, previous healthy pregnancy outcomes acted as a straightforward reassurance that their specific drinking patterns did not constitute a risk to the health of their baby:

'It's been easier in a way because we know what we did worked, we got a healthy baby. So whether that was good practice or good luck, we still got a healthy baby. So it's much easier this time.'

Participant 9

Adverse experiences during past pregnancies were also prevalent in women's accounts. Some women discussed the fact that they felt that they had done all in their power to avoid risk in previous pregnancies, through abstention from alcohol and other behaviours, and yet those pregnancies had still had negative outcomes. The realisation that risk avoidance did not completely eliminate the possibility of negative outcomes made these women view the concept of pregnancy related risks in general, and alcohol related risks more specifically, in a highly circumspect manner:

'You do listen to your midwife and you know I did everything, you don't eat prawns, you don't have mayonnaise, you don't do this, you don't do that. I just listened to everything that they said. So I followed it by the book, so to speak. ...I think when I was first pregnant and I did everything that I would think is right I still had a miscarriage. This time... I thought well, you know, what will be will be, I think everything is ok in moderation. But I don't know, I'm just generally a bit more relaxed about it.'

Participant 1

Finally, for some participants, the emotional impact of their history of infertility or non-viable pregnancy penetrated their narratives. This acted to heighten the perception of pregnancy as a locus of worry. Their current pregnancy felt a fragile state, one that could easily be taken away from them again. The need to avoid risk permeated their discourse:

'Before I even fell pregnant, because of the IVF and everything, it's like, that's not fair that you're doing that, you don't know how lucky you are to be pregnant in the first place so you, you really should be, as far as I'm concerned, you should be taking more care of yourself.'

Participant 2

It can therefore be summarised that the multigravida women interviewed incorporated their previous pregnancy experiences into their accounts of their reaction to alcohol related risk in pregnancy in very different ways. It served as only a part of a highly individual web of interlinking factors influencing reaction to risk in pregnancy.

Hierarchy of risk, 'alcohol is a lot more dangerous than mayonnaise'

Participants' discussions of 'risk' in pregnancy was not limited to alcohol, both food and smoking were also considered. 'Alcohol is a lot more dangerous than mayonnaise' is an in vivo term used to label instances in women's accounts when these other risk factors were discussed and, more specifically, how women perceived the dangers of food and smoking in

comparison to the dangers posed by alcohol. This complicated positioning of risk factors generated a hierarchy of risk, which acted as an ordering of the body of risk messages that pregnant women were subjected to.

For some women, the need for complete risk avoidance, as characterised by 'better be safe than sorry', was apparent in all aspects of pregnancy. There was a feeling that any form or level of risk was too much risk. This was typified by participant 2, who discussed finding it much harder not to eat egg than give up drinking and yet she was forcing herself to abstain:

'...eggs are me favourite food in all the world! But I mean I know as much as I want one, I'm not going to. When they said 'oh you can have one but you've got to have it hard' I was thinking 'well no that's not the point!'...I don't want a hard egg! They're just rubbish. I want a runny yolk and I don't just want an egg white 'cos that's just rubbish, that's not the best bit! So yeah, kinda gutted, gutted. But I put up with it. He's promised us a really nice fried egg sandwich in January.'

Participant 2

However, some participant's reaction to different risk factors was more nuanced, they described making judgements about the levels of risk posed by different risk factors, and often they would engage in those behaviours that they deemed to be less risky:

'I think I've chosen to particularly avoid the things that sort of I know will give a sort of direct risk to the baby, something that can be transferred to the baby or erm you know that pose a direct risk to them rather than things that make you ill in general. Erm because otherwise I mean I wouldn't go to work because at the moment I mean we see all sorts of sick people all the time and at the end of the day I can't protect myself from being in contact with all of those people. And so it seems like you know not eating sort of medium cooked beef is a bit stupid when you're then going to go into work and get coughed on by people with six different viruses. So it's that kind of thing.'

Participant 12

Within these nuanced risk judgements was an emergent belief that alcohol related risk was different to food related risk. Women's narratives indicated a feeling that food was benign in comparison to alcohol. Alcohol would always be more dangerous because it was a potentially addictive drug, whereas food was just food. It should be noted that this belief was also voiced by women who did not engage in any risk behaviours at all in pregnancy:

'It's too different, cause you know that alcohol can become an addiction for a human so you know that if you drink it excessively, you know that there is a possibility of you getting addicted to the alcohol.'

Participant 6

'...probably stronger towards the alcohol thing than...I mean I still have never ate any of the foods or anything that I shouldn't but, and I'm aware of those things but, probably not as, as strongly about the alcohol thing. Like I would think 'oh yeah, I can't have that' were I would just say to alcohol 'oh no, no, I'm not drinking.'

Participant 11

Further to discussions of alcohol and food, risks related to smoking during pregnancy were incorporated into the discourses of those women with a history of smoking. Some of these women were frank in their open acknowledgement of their perception of smoking as a greater risk than either food or alcohol:

'I've had with me tabs (cigarettes) saying right 'that's going to hurt the baby' but like having a drink in your hand you think 'as long as I don't get pissed.'

Participant 7

Interestingly, some women that discussed cigarettes in this way were often those that also discussed a concrete plan to stop or had already stopped prior to interview:

'Smoking was a part of my life, it was like I wasn't a 20 a day smoker and stuff but it was very much a routine, come home from work have a cigarette, take the dog out, come back have dinner, cigarette, like part of my routine, but that was easy enough to give up, that wasn't a problem in any way, shape or form.'

Participant 4

For those women that had continued to smoke in pregnancy, the addictive nature of smoking was contrasted to the non-dependent nature of their relationship with alcohol. They viewed themselves as almost powerless with regard to smoking:

'This is quite hypocritical this cause I still smoke you see, I still have the occasional cigarette which is probably on the same thing but I look... I look at nicotine as more of an addiction and alcohol as a choice. So, you know, I don't wanna sound hypocritical on that score but, you know, it's... it's different, it's quite bizarre...It's an addiction, you know, when you've done it for like 20 odd years and you've had nothing else to think about but yourself then, you know, but you know, going from 20 a day to five a day is... and then it'll go to nothing but alcohol, you can either stop now or not stop now, you know what I mean?'

Participant 12

Unlike women drinking in pregnancy, who felt that doing so at relatively low levels did not pose a risk, women who continued to smoke never discussed smoking to be without risk.

Instead they were caught at the difficult intersection of acknowledging that they should not smoke and yet trying to rationalise the fact that they were taking a risk in their pregnancy. This is typified by the following quotes from participant 20; she states she knows she should give up smoking whilst in the same breadth defending smoking as not being that big a risk in comparison to alcohol:

'Well yeah because like you say those you get say you're drinking and that and obviously you're drinking like spirits and everything it's going to go straight to your head and then when ... takes only one thing, just to trip over a kerb or that means straight down on you so where smoking you're not...do you know what I mean, you're with it (yeah) it's just nicotine.'

'I know smoking I should like really stop smoking but I just think there's like loads of kids who've been born...all my...nearly all my cousins have smoked with their kids and that and they're all fine.'

Participant 20

In addition to a hierarchy of risk formed by different foods and substances, for some women there was a form of temporal hierarchy of risk. For these women, the first trimester was considered a far more vulnerable time for the baby than the subsequent trimesters. This was grounded in the knowledge that all fetal development occurred in the first 12 weeks and it was the time when miscarriage was more likely. This perceived heightened susceptibility of the baby led women to discuss the need to disengage from any risky behaviour, including alcohol use, until the second trimester began:

'For me I think the first 12 weeks until you've had that scan and you know that the baby's alright, that ..the conscious decision is like, erm, not going to, I didn't go the gym or do anything, I don't think I moved off the settee for the first 12 weeks, do you know what I mean? Just until you know that everything is alright. That's a conscious decision not to drink for the first 12 weeks.'

Participant 14

4.8 Chapter Summary

Within this chapter the participant group has been described. The analysis of the data arising from the interviews with the study participants has also been detailed. There is an emergent conceptual model of drinking during pregnancy that is centred on social norms. In particular, how women did not emphasise the importance of known medical norms and instead articulated regulating their own behaviour and that of others in order to comply with social expectations of pregnant women. In the next two chapters, the systematic review that has

been undertaken as part of my doctoral work will be detailed and the findings of the included literature explained.

Chapter 5: A systematic review of the qualitative literature concerning pregnant women's views of alcohol consumption: methodology and methods.

5.1 Chapter Introduction

The systematic review concerning pregnant women's views on alcohol consumption is detailed in the next two chapters of this thesis. Within this chapter, the methodological approach taken to systematic reviewing is explained and the methods employed are stated. Specifically, the detailed aim and objectives of the systematic review are stated. The methodological concerns of undertaking systematic reviews of qualitative research and the approaches taken to address these difficulties are then outlined, followed by a description of the specific methods utilised.

5.2 Aim and Objectives

The aim was to undertake a systematic review of the available qualitative literature addressing pregnant women's views on alcohol consumption and factors that influence their consumption. The specific objectives were:

- To identify and appraise published international qualitative research papers on pregnant women's views and understandings of alcohol use in pregnancy using a systematic search strategy.
- To use a narrative summary approach to develop an understanding of factors that have been found within the identified literature to influence pregnant women's behaviour regarding alcohol consumption.
- To compare the findings of this systematic review with the findings of my own interviews and explore any differences between the two (in the discussion chapter of this thesis)

5.3 Methodology

5.3.1 *The rationale for performing a systematic review.*

A systematic review is defined by the Cochrane Collaboration as a review which 'attempts to collate all empirical evidence that fits pre-specified eligibility criteria in order to answer a specific research question. It uses explicit, systematic methods that are selected with a view to minimizing bias, thus providing more reliable findings from which conclusions can be

drawn and decisions made'[121]. Systematic reviews are increasingly viewed as a mainstay of evidence based medicine [122] [123] because they hold a number of advantages over traditional literature reviews. When they are well performed, they bring together all the available research on a given question. This allows individuals to keep abreast of the huge amount of primary research published and, critically, enables an unbiased appraisal of the whole body of evidence. Therefore, reliance on erroneous or unreliable results from individual studies is prevented [124].

The importance of the role of qualitative evidence within systematic reviews addressing health care questions has been recognised for a number of years. The perceived benefits are largely the same as for the inclusion of qualitative methods within health research in general. Namely, the recognition that not all research questions can be answered by quantifiable means [125]. Qualitative evidence has the capacity to explore the 'why?' questions; why people engage in behaviours that may have a negative health impact; why they do/ do not participate in interventions designed to improve health etc. [126]. However, the methods by which qualitative evidence can be included within systematic reviews remain controversial. The over-arching epistemological concern is that the findings of qualitative studies arise as a consequence of unique interactions between researcher and participant in the context of that particular social setting and time. Thus, it can be argued that there is limited value in attempting to draw generalisations from the findings of such case specific research [127]. However, this view should be considered an extreme one. At its essence, most forms of qualitative research require the identification of individual cases and then making comparison across cases [128]. Analysis of empirical studies using interview data must first identify individual cases, e.g. transcripts arising from particular interviews or groups of transcripts arising from a theoretically constructed sampling frame, and then seek to identify commonalities and differences across the cases. Thus, this review was performed under the assumption that there is value and merit in bringing together different qualitative research addressing the same issue. Systematic review methods have been adopted because they offer a means of ensuring that literature searches were rigorous and extensive enough to identify as much of the relevant literature as possible. The methods of reporting systematic reviews also enable justification and accountability of the search strategy undertaken [123].

5.3.2 *The rationale for the approach to the analysis of the data contained within the included studies*

Once the relevant literature has been identified within a systematic review, it is necessary to decide what approach to take to the analysis of the findings of the included studies.

Synthesis of qualitative data arising from different studies is again controversial because qualitative research is, in reality, an umbrella term for a very broad range of research grounded in heterogeneous epistemological and theoretical backgrounds. It is for this reason that Dixon-Woods and Fitzpatrick [129] wrote that *'a daunting array of theoretical and practical problems awaits reviewers who attempt the secondary manipulation of the concepts or themes that are the staple product of qualitative research'* (page 765). Despite this there have been numerous efforts to develop rigorous methods of synthesis. A recently published book has described seven different published approaches [130]. As with all research methods, each approach described has its strengths and limitations and some are more applicable to different research questions than others. Whatever the method chosen, the principal benefit of synthesis is that it has the capability of *'revealing more powerful explanations than are available in a single study, leading to greater generalisability of the research findings and often to increased levels of abstraction'* [131]. Paradoxically, it is for precisely this reason that formal synthesis was not undertaken within this systematic review. All forms of synthesis, to varying extents, aim to re-conceptualise and thus bring a higher level of interpretation than in the original studies. The re-conceptualisation of data fundamental to synthesis would preclude the aim of this systematic review, which is to undertake a detailed description of the reported results of the included studies. Therefore, narrative summary was undertaken as the method of analysis, which is understood to be description and summary of the major themes within the included studies [131]. It was anticipated that there would be a low number of studies identified as suitable for inclusion within this systematic review, making narrative summary feasible.

5.3.3 *Rationale for the approach to the identification of studies*

In addition to the method of analysis or synthesis, there are further considerations in the application of systematic review methods to qualitative literature that warrant discussion. The identification of relevant qualitative literature within bibliographic databases is arguably more problematic than the identification of relevant quantitative studies [129]. This is because qualitative research tends to use titles and abstracts that are not always explicit

regarding the content of the study, making retrieval on this basis more difficult [132]. Further, many databases do not, or have only recently, developed index terms for qualitative research [132]. In order to overcome these difficulties, a search strategy was designed that was as inclusive as possible, accepting that this would cause a subsequent drop in specificity. The searches relied upon a combination of index and key word searching as this has been found to be the most effective mechanism to increase the sensitivity of a search strategy [133]. A large number of databases indexing research from medicine, sociology and education were undertaken because alcohol use in pregnancy is an area that holds potential relevance for a diverse range of disciplines. A search of the grey literature was also performed, as recommended by the Cochrane Collaboration [134]. Articles were only excluded on the basis of title and abstract when it was absolutely clear that they did not fit the inclusion criteria and when no abstract was provided the full study was always read [133].

5.3.4 Rationale for the approach taken for the quality appraisal of included studies

Quality assessment of included studies is considered a core principle of standard systematic review methodology. It is the means by which the methodological rigour of the body of evidence is judged and the risk of bias assessed [134]. However, the quality assessment of qualitative literature is a contentious issue amongst researchers [122, 135]. It has been argued that attempts to judge the quality of any one study by predetermined criteria is essentially positivist and anathema to the interpretivist epistemological foundation of qualitative research, which by its very nature necessitates plurality of methods and applications [122]. However, the fundamental critique of this standpoint is that it negates the concept of rigour in qualitative research [136]. Underpinning the methodology of this systematic review is an acceptance that rigour and quality are tangible concepts in qualitative research [137]. Therefore, critical appraisal of studies was performed within this review. As the purpose of this systematic review was to identify and appraise the available literature, the role of the critical appraisal was not to provide a justification for exclusion of poor quality studies, but rather to guide a critical exploration of a body of qualitative research [138]. A formal tool was employed in order to make the process of quality appraisal as transparent as possible, providing a clear audit trail of how a judgement was reached [123]. The production of tools to enable the critique of qualitative literature has received much attention, with Dixon –Woods et al identifying over 100 sets of proposals on how

quality should be assessed [122]. Quality appraisal tools can be broadly divided into two groups, procedural tools and those based within a particular theoretical framework. The former aim to assess the methodological rigour of a paper, and the latter judge all studies by the standards particular to that framework [122]. This systematic review bridges a broad base of literature and the aim of the quality assessment undertaken was to judge the methodological soundness of the included studies according to the standards of the research paradigm from which it is based, thus it was important to choose a procedural tool to assess quality. The tool by Walsh and Down [137] was chosen because it is based on sound methodological grounds. It was the product of a critique of the components of eight identified frameworks, and specifically aimed to judge the internal methodological consistency of studies. However, it is important to be cognisant of the limitations to quality assessment undertaken within this review. Appraising quality on the basis of a procedural tool can mean that papers which offer in-depth analysis of data and rich interpretations, but give less detail on methodological issues, may be scored more poorly than a study which has provided a great depth of detail on how their data was collected and analysed but offers a weak interpretation and insight into the topic at hand [122]. It is for this reason that Sandelowski and Barroso [139] argue that quality assessment tools should not be used as a checklist and the judgement of one criterion should not negate the value of the overall paper. Consequently, the critical appraisal employed here utilised the prompts listed in the Walsh and Downe tool but also aimed to interrogate the balance between methodological clarity, theoretical insights within the studies and the quality of interpretation of the findings.

5.4 Methods

5.4.1 Review Question and Inclusion Criteria

In order to better define the parameters of the searches to be undertaken and the inclusion and exclusion criteria of the review, the research question was modified to fit the SPICES tool; Setting, Perspective, Intervention, Comparison, Evaluation and Social Sciences Method (Table 5-1). This tool was proposed by Booth in 2004 [140] as being a more suitable method to formulate review questions which are exploratory in nature, i.e. those based within the qualitative research paradigm.

Table 5-1: Review Question

Setting	Pregnancy
Perspective	Women's views and understandings
Intervention	Alcohol Use
Comparison	N/A
Evaluation	N/A
Social Science method	Primary qualitative research

Studies were defined as eligible for inclusion if they met the following criteria: (1) presented primary qualitative data in terms of method, analysis and presentation of results; (2) discussed perceptions of alcohol use in pregnancy either in isolation or as part of a wider body of health 'risks' relevant to pregnant women; (3) included pregnant women or recently postpartum women, with children one year of age or less (and thus more able to clearly recall and talk about how they made decisions regarding alcohol use in their own pregnancy). Published abstracts, undergraduate research dissertations and studies reporting survey research with open ended questions were excluded, as it was felt that these papers could not explore the topic in sufficient depth. Studies not published in English were excluded as resource limitations prevented translation. Finally, research that was set within the context of alcohol dependency (both physical and emotional) was excluded. Alcohol dependency during pregnancy is often associated with complex social and emotional concerns and these women are required to attend specialist antenatal care [141]. As such it is possible that dependent women will have different views on alcohol consumption during pregnancy than non-dependent women [142].

5.4.2 Search Strategy

An information specialist within the Institute of Health and Society and specialist librarians within the medical and sociological disciplines were consulted whilst the search strategy was being drafted. They ensured that the correct databases were searched and advised on the use of appropriate search terms for the databases. No time limits were applied to any database, in order to make the searches as inclusive as possible. The name of the database, the platform used to search them and the included years are detailed in Table 5-2. Different years of inclusion are indicated because the searches were originally performed in October / November 2011 and then updated in January 2015. However, the search strategy could not be reproduced exactly due to changes in some databases and altered library access to other databases. These changes concerned the more specialist databases and thus advice was

sought from the specialist medical and sociological librarians to ensure that the revised search strategy was likely to be as sensitive as the original strategy.

Table 5-2: Electronic bibliographic databases searched

Database	Platform	Years of inclusion
Medline	OVID SP	1946 to 01/2015
Embase	OVID SP	1980 to 01/2015
Scopus	Sciverse	1960 to 01/2015
Cinahl	EBSCO Host	1984 to 01/2015
PsychInfo	OVID SP	1806 to 01/2015
Maternity and Infant Care	OVID SP	1971 to 11/2011
Nursing and Allied Health Source	Proquest	1986 to 11/2011
ASSIA	CSA	1987 to 01/2015
ERIC	CSA	1966 to 01/2015
IBSS	CSA	1951 to 01/2015
PILOTS	CSA	1871 to 01/2015
Social Services Abstracts	CSA	1979 to 01/2015
Sociological Abstracts	CSA	1952 to 01/2015
National Criminal Justice Reference Service Abstracts	CSA	1970 to 01/2015
Article First	OCLC	1990 to 11/2011
ECO	OCLC	1995 to 11/2011
FRANCIS	OCLC	1972 to 11/2011
Papers First	OCLC	1993 to 11/2011
Proceedings	OCLC	1993 to 11/2011
World Cat	OCLC	n/a
World Cat Dissertations	OCLC	n/a
Ebooks	OCLC	n/a
Science Citation Index	Web of Knowledge	1970 to 01/2015
Social Sciences Citation Index	Web of Knowledge	1970 to 01/2015
Conference Proceedings Citation Index	Web of Knowledge	1990 to 01/2015

The websites of key journals were searched to ensure identification of any relevant papers not indexed within the bibliographic databases. These journals were Social Theory and Health, Health, Sociology of Health and Illness, Social Science and Medicine, Human Fertility, Canadian Journal of Clinical Pharmacology, British Journal of Midwifery, African Journal of Midwifery and Women's Health, Midwifery, Journal of Midwifery and Women's Health and British Journal of Obstetrics and Gynaecology. Relevant grey literature was identified by searching the NHS evidence database, Google (first 100 hits), Google Scholar (first 100 hits) and Fetal Alcohol Syndrome specialist sites (NOFAS-UK, SAMHSA Fetal Alcohol Spectrum Disorders Center for Excellence, Motherrisk project). In order to identify any additional studies not identified through database and grey literature searching, the citation lists of all

included studies were searched. The corresponding authors of included studies were contacted to determine if they knew of any other relevant publications that should be considered for publication. Authors were also contacted when relevant studies were published in a language other than English to determine if translations were available. Authors of relevant conference abstracts were contacted to determine if full papers had been published.

In order to identify relevant literature within the bibliographic databases, a comprehensive set of search terms for the subject area, alcohol and pregnancy, was developed. These are listed in Appendix F. It was necessary to apply search terms to filter for qualitative study design because qualitative literature forms a small proportion of the published literature in the biomedical field [143]. Qualitative search filters have been developed and validated for Medline[143], Embase [144], Cinahl [145] and PsycInfo [146]. In each case the search filter that was proven to have the maximum level of sensitivity was employed. The MESH term 'qualitative research' was added to the Medline search filter because this term was added to the index after the development of the search filter. No validated qualitative research search filter could be identified for the remaining databases and so a comprehensive set of search terms was created using the indexing terms that had been applied to previously identified relevant qualitative studies and the search strategies published in previous systematic reviews of qualitative literature [147, 148].

5.4.3 Study Selection and Quality Assessment

Once searches were complete, the titles and abstracts of all retrieved studies were read by one reviewer (KL). Those studies that clearly did not meet the inclusion criteria were excluded at this point. The full text of all remaining studies were then read by two reviewers (KL and one of my supervisory team) to determine their eligibility for inclusion in the review. The sifting of the full text of the studies was facilitated by the use of a standardised 'in/out' form developed for this systematic review (Appendix G). Differences in judgement regarding the eligibility of a given study were resolved by discussions between the reviewers. When an agreement could not be reached, the opinion of a third reviewer was sought. Decisions regarding inclusion were not always straightforward and required a level of interpretation. For example, South African research by Watt et al was performed with pregnant and recently post-partum women that described very heavy drinking patterns; one pregnant

participant stated *'We'll drink a case of beer. That's 12 beers. I drink every day. I'll start on Thursday and drink until Sunday. When I wake up with a hangover I'll start again'* (page 121) [149]. Whilst the authors did not classify this drinking as dependent, it is likely that in the UK context these women would be required to attend to specialist antenatal services as a result of their drinking and therefore this study was excluded. Additionally, a report by de Bonnaire and Falloon included nine pregnant and 15 recently post-partum women, the youngest child of women who had recently been pregnant was less than three years old [150]. However, this study was included because it included the opinions of women who were currently pregnant.

Data extraction was performed on all included studies. A structured data extraction tool (Appendix H) was developed in conjunction with two other researchers within the Institute of Health and Society with expertise in systematic reviewing of qualitative literature and piloted on one study. Data extraction was performed independently by KL and one of three researchers with qualitative research experience within the Institute of Health and Society. The quality of each included study was independently assessed by two reviewers (KL and one of the three researchers). Differences in judgement regarding the quality of an included study were resolved via discussion between the two reviewers.

5.4.4 Data Analysis

Two main approaches were taken for the narrative summary analysis, data summary and analytic discussion of the similarities and differences of the included studies. In order to summarise each included study the following details were extracted from the study and included within a summary table: study aim, study setting and participant characteristics, theoretical approach adopted, study design and sampling strategy and analytical approach. A narrative summary of the quality assessment was also included within the summary table. The themes, or concepts for those papers which did not list findings thematically, described within all the studies were then tabulated with the studies listing these themes. This concept table formed the framework for a systematic, in-depth analysis of the similarities and differences within each included study. It should be noted, however, that weighted significance of particular concepts in this table is not being inferred, i.e. those concepts mentioned more do not necessarily impart more importance to the results of this systematic review.

5.5 Chapter Summary

Within this chapter both the methodological approach to and specific methods employed within the systematic review of qualitative literature have been explained. In particular, it has been emphasised that this systematic review was envisioned as a pragmatic way to ensure that as much relevant literature was identified and included within this thesis as was possible. The data within the studies was analysed according to the narrative summary approach to enable a detailed description of the reported results of the included studies and to avoid any re-conceptualisation of data, inherent to methods of data synthesis. The findings of this narrative summary are detailed in the following chapter.

Chapter 6: A systematic review of the qualitative literature concerning pregnant women's views of alcohol consumption: a narrative summary of the findings.

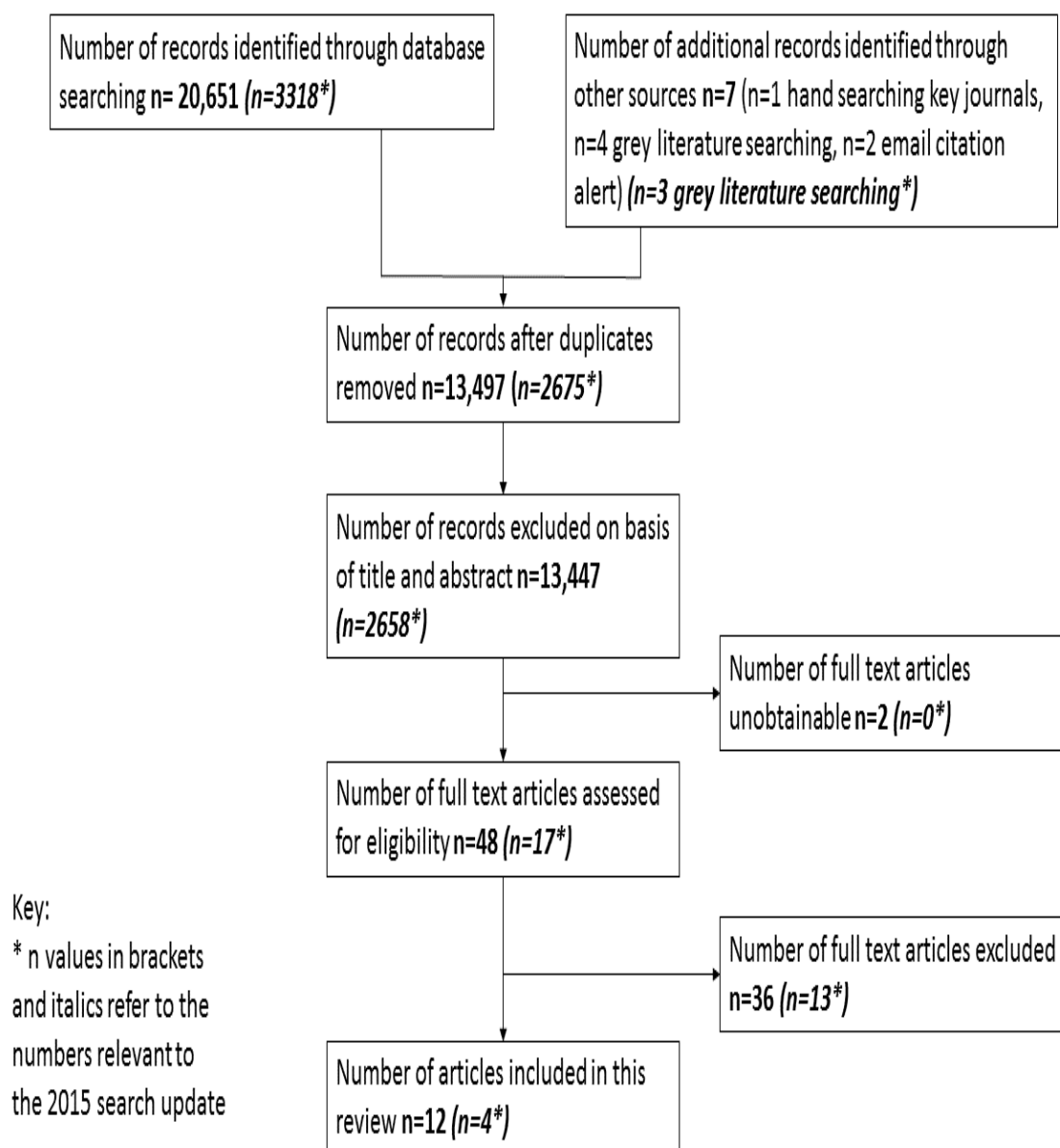
6.1 Chapter Introduction

This is the second chapter concerning the systematic review of the published qualitative literature concerning alcohol use in pregnancy that was undertaken as part of this doctoral research. In the previous chapter the methodology and methods of the review were explained. Within this chapter the studies identified for inclusion within the systematic review are described and the results of the narrative summary of the findings are detailed.

6.2 Summary of Included Studies

Twelve peer reviewed journal articles met the inclusion criteria for this review. The full citations of the studies excluded after review of the full text are shown in Appendix I, together with the reasons for exclusion. In three instances, the opinion of a third reviewer was required to determine whether studies should be included, in each of these cases the study was subsequently excluded [151-153]. Two of the studies [154, 155] that were judged to be possible includes based on title and abstract review were unobtainable in full text format. Hence, personal contact was made with the head librarian of the host library and the full text documents were confirmed as lost. Consequently, these studies were excluded from the review. The contact details of the author of one of the included studies [156] could not be traced. The numbers of studies identified in the searches (both original and updated) and then subsequently excluded at each stage is displayed in the review flowchart (Figure 6-1):

Figure 6-1: Review flow chart of the number of studies identified and then excluded at each stage of the review



The key characteristics of the included studies are summarised in Table 6-1. Of the 12 included studies, one employed focus groups [157], six employed face to face interviews [86, 150, 156, 158-160], two employed telephone interviews [161, 162] and one employed both interviews and focus groups [163]. The final two studies analysed the content of postings of internet chat rooms in France, the first analysed postings in 2007 [164] and the second follow-up publication analysed postings between 2009-2010 [165]. Two of the studies concern the same dataset of interviews with 50 pregnant women [159, 160]. However, the aims and subsequent analyses of the studies are distinct; one aiming to examine pregnant women's perceptions of the risks of smoking and drinking during pregnancy [160] and the

other aiming to examine personal agency and social influence in lifestyle decisions made by pregnant women [159]. Thus, both studies provide distinct insights to the research question and have both been included within this review. In nine of the studies the participants were all currently pregnant [86, 156, 159-165] and in the remaining three the participants were a mix of pregnant and recently post-partum women [150, 157, 158].

The included studies originate from a diverse range of countries, four from the USA [86, 156-158], two from France [164, 165], two from French speaking Switzerland [159, 160], and one each from the UK [161], Australia [162], the Netherlands [163] and New Zealand [150]. The dates of publication of the included studies range from 1987 [156] to 2014 [150, 160]. All of the countries of origin have Government policies recommending abstinence in pregnancy and in all cases these policies have been established within the last 10 years. Arguably, changing policies reflect increasing focus regarding alcohol use in pregnancy. For example, only eight studies were identified for inclusion during the first round of literature searches (in which no time limit was set in order to be as inclusive as possible). In comparison, four studies were included in the second round of searches, despite the fact that these searches were limited to the much smaller time frame of 2011 to January 2015. Therefore, it is important to consider the context (time and place) in which the studies were originally published and participants' pregnancies were enacted because it could be hypothesised that women participating in the more recently published studies would be more aware of prenatal alcohol use as a potential issue. For instance, the USA has a long history of highlighting the need to consider alcohol use in pregnancy. In 1981 the Surgeon General's office stated that pregnant women should limit their alcohol intake, however in 2005 this guidance was changed to recommend abstinence only [166]. Therefore, it is possible to infer that the women participating in the studies by Barbour [156] and Root and Browner [86], performed in 1987 and 1989-1992 respectively, were pregnant at a time during less public knowledge of the concerns of alcohol use in pregnancy than women participating in the later USA studies [157, 158]. The UK Department of Health also changed Government policy to recommend abstinence in 2007 [20]. It is important to note that the study published in the UK [161] was conducted at the time of the policy change, which was highly controversial and the subject of much debate within both the medical [25, 167] and public arenas [168]. Therefore, it is likely that the issue of alcohol use in pregnancy would be highly prominent in the minds of the participants. As a consequence of this, the authors

inductively searched for the theme 'Influence of confusing or unclear advice on drinking in pregnancy' within participants' accounts. In Australia, there have been two recent policy changes with regard to alcohol use in pregnancy. In 2001, the guidance was changed from recommending abstinence to recommending low levels of consumption, defined as less than seven standard drinks per week and no more than two standard drinks during any one day. In 2009, this was changed back to recommending abstinence [169, 170]. In 2004, the French Government issued a policy regarding alcohol use in pregnancy for the first time, recommending abstinence [171]. This was in response to a legal case brought by four women who had given birth to babies subsequently diagnosed with FAS, who accused the Government of not sufficiently warning them of the potential dangers of alcohol use in pregnancy [164]. Since that time, the Government has also recommended that various primary prevention campaigns be instituted, e.g. health warnings addressing alcohol use during pregnancy have been added to alcoholic drink labels, and health professionals are required by the Government to hand out leaflets concerning the risks of alcohol to pregnant women [164]. Toutain was cognisant of this changing climate when she published both of the French studies included within this review [164, 165]. In the later study [165] she states the aim of that research was to 'highlight the recent preoccupations of pregnant women expressing themselves on the internet forums in 2009-2010...knowing that information campaigns have been implemented every year since 2007, and that awareness of healthcare professionals has been improved' (page 17) [165]. Indeed, in this study Toutain had to draw upon four internet chat forums, one more than in the first study, because less women were posting about alcohol and pregnancy in 2009-2010 than in 2007. The author concludes that this is either because the education campaigns have been efficient or the continual education has served to make the issue less topical. The Swiss recommendation regarding alcohol use was similar to the UK at the time the two Swiss studies [159, 160] were conducted. From 2005, pregnant women in Switzerland were advised not to drink alcohol, but if they did drink, not to drink more than one glass per day and to avoid excessive consumption at all costs [171, 172]. However, in 2015 it was updated to recommend abstinence only [18]. In 2005, the Health Council of the Netherlands advised that men and women should not drink during the conception period and that women should not drink during pregnancy [173]. Since that time the involved health professional groups (midwives, GPs and obstetricians) have also agreed to multidisciplinary guidance reinforcing the abstinence message [174]. Since 2006 the New Zealand Ministry of Health has advised that

all pregnant women and those trying to conceive avoid alcohol, they also state that all health practitioners should promote this message [171].

Table 6-1: Summary of the key characteristics of included studies

Author	Study Aim	Study year & Setting	Theoretical Approach	Participant characteristics	Study Design	Sampling strategy	Analytic Approach	Summary of main findings	Narrative summary of study quality
Barbour, 1990 [156]	Explore drinking behaviours of pregnant women & factors influencing these behaviours.	Chicago, U.S.A. 1987	Not stated	20 pregnant women. Aged 17 to 35, mixed SES and ethnicity (13 Caucasian, 7 black) & parity (6 primigravida)	Face to face interviews	Not stated	Not stated	6 themes relating to influences on the decision to drink in pregnancy. (1) Habit: women drinking prior to pregnancy were more likely to drink during. (2) Knowledge & Beliefs: most women thought alcohol was only harmful in large amounts. (3) Benefits & Risks: most women judged use during pregnancy as trade-off between perceived benefits & dangers. (4) Social Situations & Social Pressure: women felt social pressure to drink. (5) Role of Significant Other: not the only factor in decision making; (6) Source of Information: only 2 women received information from health care provider.	<i>Quality Assessment:</i> No detail about method of analysis was presented. Quotes are not used effectively to substantiate claims. There is no theoretical grounding. There is a poor understanding of the epistemological basis of qualitative research, study limitations are discussed in quantitative terms (e.g. small sample size). <i>Implications of Quality Assessment:</i> Study lacked both theoretical insight and methodological clarity, it was not relied upon heavily during analysis.

Author	Study Aim	Study year & Setting	Theoretical Approach	Participant characteristics	Study Design	Sampling strategy	Analytic Approach	Summary of main findings	Narrative summary of study quality
Baxter et al, 2004 [158]	Probe social factors related to drinking & pregnancy, specifically interaction with social network members. 2 research questions: (1) who are the people whose voices matter to pregnant women (2) what are discourses that animate talk about drinking & pregnancy amongst pregnant women?	Rural Iowa, U.S.A. Year not stated	Social communication perspective informed by intermedia theory & dialogism theory. Intermedia theory states behaviours that media campaigns seek to modify are anchored in social networks. Dialogism posits that communication within social networks is characterised by competing voices.	60 pregnant or recently post-partum women (≤ 12 months). 40% currently pregnant, 100% co-habiting, mean age 22.2, mean 2.5 previous pregnancies, 5% continued drinking in pregnancy.	Face to face interviews	Not stated	Analytic Induction followed by member checking (n=10)	Research question 1: women didn't talk much about drinking in pregnancy & the partner was passive in discussions. Research question 2: 2 competing social ideological languages influencing talking about drinking & pregnancy: (a) discourse of individualism, individual choice whether to drink in pregnancy, this discourse functions to silence talk about drinking in pregnancy; (b) discourse of responsible motherhood, there is an obligation to place the fetus' needs as primary. The dominant discourse was individualism, it was not acceptable to talk about drinking in pregnancy with anyone that was not a close relative / friend.	<i>Quality Assessment:</i> Author's provide clear justification for theoretical stance & employed appropriate methods to achieve aims. Purposive sampling was not employed; women who abstained were over-represented in the study population. Methods & analysis were explicitly described & quotes were used extensively to substantiate claims. A thick analytical discussion of findings was provided. <i>Implications of Quality Assessment:</i> The depth of analysis & theoretical focus of this paper meant it was relied upon to elaborate on the concepts of 'significance of other people' & 'good motherhood'

Author	Study Aim	Study year & Setting	Theoretical Approach	Participant characteristics	Study Design	Sampling strategy	Analytic Approach	Summary of main findings	Narrative summary of study quality
Branco & Kaskutas, 2001 [157]	(1) Provide understanding of how at risk women regard, & emotionally react to, warnings about alcohol in pregnancy. (2) Uncover aspects of women's beliefs & opinions about drinking in pregnancy not elicited by other research. This study informed a survey of pregnant at-risk women.	Los Angeles, U.S.A. 1997.	Informed by Health Belief Model, theorising changes in drinking behaviour during pregnancy depend on perceived liability to having a child with FAS, understanding the potential risks, value placed on abstinence & barriers in trying to reduce consumption	2 Focus Groups with 11 pregnant or recently post partum women. Women were African American or Native American, 6 drank prior to pregnancy, 2 continued to drink during pregnancy.	Focus Groups	Recruitment limited to African American and Native American women.	Not stated.	Themes with the most impact on survey discussed. (1) Exposure & believability of messages: warning labels on drinks important but overstating dangers made messages unbelievable. For Native American personal experience of FAS made the risks salient. African Americans viewed drug use in pregnancy as more threatening. (2) Perceptions about risks: women had personal scales of alcohol strength & potential for harm. Women had varying knowledge of FAS. (3) Barriers to cutting down: women excluded themselves from social situations to avoid pressure to drink. Lack of social support was a reason to continue drinking.	<i>Quality Assessment:</i> The use of focus groups is justified and the results are substantiated by thorough use of quotes. The methods and analysis were very poorly described making it impossible to judge the validity of the findings or the extent to which the chosen theoretical stance influenced the analysis. The authors failed to justify the choice of theory, discuss it in any depth or situate it within any epistemological grounding. <i>Implications of Quality Assessment:</i> This study was used to enhance concepts identified within other studies, in particular it provided a 'deviant case' of pregnant women needing to drink to maintain social identities.

Author	Study Aim	Study year & Setting	Theoretical Approach	Participant characteristics	Study Design	Sampling strategy	Analytic Approach	Summary of main findings	Narrative summary of study quality
Raymond, Beer et al, 2009 [161]	Explore pregnant women's attitudes towards alcohol consumption during pregnancy & their attitudes towards sources of information and advice about drinking in pregnancy.	Nottingham & London U.K. 2007	Not stated	20 pregnant women, aged 23-40, 9 primigravida, 6 women abstained, all educated to \geq A level & all were co-habiting.	Telephone interviews	Not stated	Thematic analysis, both inductive & deductive themes.	8 themes (1) Influence of risk evaluation: risk perception influenced drinking. (2) Precedence of unborn child: obligation to protect child took precedence over drinking. (3) Influence of previous & other's pregnancies: reassuring regarding drinking (4) Need to respect individual differences: drinking behaviour comfortable for the individual advocated (5) Facilitators to drinking: alcohol beneficial for stress relief (6) Influence of confusing or unclear advice: clearer guidance was desired (7) Attitudes towards available advice: advice lacked justification & women wished to know more (8) Taking responsibility for own health: women desired individual choices & control of their own health.	<p><i>Quality Assessment:</i> Methods & analysis described enough to judge validity & quotes substantiated analysis. Use of telephone interviews justified pragmatically (i.e. convenience), but unlikely these were in any depth. Epistemological grounding of research not discussed. The choice of deductive themes was not adequately justified, previous research was cited but it was not clear why these factors were chosen over others in the literature.</p> <p><i>Implications of Quality Assessment:</i> The breadth of findings and apparent validity of the research meant that the results of this study was relied upon quite heavily in many sections of the analysis.</p>

Author	Study Aim	Study year & Setting	Theoretical Approach	Participant characteristics	Study Design	Sampling strategy	Analytic Approach	Summary of main findings	Narrative summary of study quality
Toutain,2010 [164]	(1) Identify future mothers' representations of alcohol consumption in pregnancy (2) Have a better understanding of their perception of the messages meant to influence their behaviour.	3 French internet chat forums, 2007	Not stated	42 pregnant women posting on 3 chat forums. Reliable demographic information was not available on the chat forums.	Analysis of inputs made by the 42 women on forums	Not stated	Thematic Analysis	3 themes of major concerns. (1) Acceptable alcohol consumption: the majority did not interpret abstinence as no alcohol consumption. Women adapted the abstinence message to suit their lifestyle and experiences of their own mothers. (2) Consequences of drinking during pregnancy: Very little was known. Some women used popular knowledge, based on personal experience, to justify drinking during pregnancy. (3) Information: women received information from a variety of different sources, information provided by health professionals was not often mentioned. Women's mothers seemed to be the strongest influence. No women reported social pressure to stop drinking.	<i>Quality Assessment:</i> The methods & analysis were too poorly described to enable judgement on the validity of findings. The choice of chat forums or women selected was not justified. It is impossible to determine what constituted the body of text for analysis, it is not stated how the 250 messages were selected. There is no theoretical background & analysis is highly descriptive. <i>Implications of Quality Assessment:</i> This study was not relied upon heavily, but it did provide a 'deviant case' of pregnant women needing to drink to maintain social identities.

Author	Study Aim	Study year & Setting	Theoretical Approach	Participant characteristics	Study Design	Sampling strategy	Analytic Approach	Summary of main findings	Narrative summary of study quality
Toutain, 2013 [165]	Analyse postings on internet forums about alcohol use in pregnancy in light of education campaigns & improved professional knowledge since the original 2007 study.	4 French internet chat forums, 2009 – 2010	Not stated	142 messages posted using 35 pen names. Reliable demographic information was not available on the chat forums.	Analysis of the corpus of 135 messages posted under 35 pen names	Not stated	Thematic analysis	3 main themes. (1) False information about alcohol consumption during pregnancy: Wine / beer considered less dangerous than spirits. Only abstinent women & health care professionals interpreted abstinence to mean no alcohol. Abstinent women reported abstinence prior to pregnancy. (2) Information sources to none homogenous messages: internet used for information. Health professionals gave conflicting advice. Lower SES women gathered advice from mothers. Very few discussed social pressure to drink. (3) Imperfect knowledge about pregnancy: unconcerned about drinking prior to pregnancy recognition. First ultrasound viewed as capable of revealing FASD defects.	<i>Quality Assessment:</i> As described for the Toutain 2010 study. Further, in this analysis attempts were made to draw out inferences based on typologies (i.e. SES) but the nature of data collection meant that it was not possible to accurately ascertain demographic data. <i>Implications of Quality Assessment:</i> This study was not relied upon heavily, but it did provide a comparison of the changing views over time in comparison to the first Toutain publication.

Author	Study Aim	Study year & Setting	Theoretical Approach	Participant characteristics	Study Design	Sampling strategy	Analytic Approach	Summary of main findings	Narrative summary of study quality
Root & Browner, 2001 [86]	Explore how the culture of biomedicine, encountered formally at prenatal care check-ups & informally through diverse media, influences pregnant women's perceptions of appropriate prenatal behaviour. Data collected for research about the routinization of fetal diagnostic testing.	Southern California, USA. 1989-1992	Faucaudian and post Faucaudian concepts were employed to develop a theoretical framework for observing how women's pregnancy accounts exist on a spectrum of compliance through to resistance of biomedically derived prenatal norms.	One hundred and fifty eight pregnant women. All women had been raised Christian. Mixed ethnicity (63% European American, 25% Mexican American & 12% Mexican immigrant) Mixed SES (based on annual household incomes & education attainment)	Face to face interviews.	Recruitment limited to European or Mexican women raised Christian	Not stated.	Women relied on own ethics to determine how & when different prenatal rules were relevant to their needs. This demonstrated the non-static manner in which biomedical hegemony operated. Different streams of knowledge, rules & experiences yielded a variety of pregnant practices that converge in women's lives, making isolated analysis of each stream impossible. Women's reasoning processes are dynamic.	<i>Quality Assessment:</i> Analysis was poorly described, validity judgments difficult. Sampling strategy was justified for the research about fetal diagnostic testing. All participants Christian, hampering the ability to reach stated aims of this sub study. The authors were explicit in their use of theory and their results provide an in depth, analytical attempt to understand how women negotiate prenatal behaviour. <i>Implications of Quality Assessment:</i> The theoretical focus meant that this study provided much of the evidence for the concept of medical norms. The depth of analysis also enabled elaboration of social pressure, significance of other people & good motherhood.

Author	Study Aim	Study year & Setting	Theoretical Approach	Participant characteristics	Study Design	Sampling strategy	Analytic Approach	Summary of main findings	Narrative summary of study quality
Jones and Telenta, 2012[162]	(1) Explore awareness & attitudes towards alcohol consumption in pregnancy among pregnant women & midwives (2) explore factors that may encourage / inhibit pregnant women from abstaining	New South Wales, Australia. 2008-2009.	Not stated	12 pregnant women & 12 midwives. Aged 24 to 35, mixed parity, 1 participant was single, mixed SES (education attainment & employment status)	Telephone interviews (pregnant women). Face to face interviews (midwives)	Not stated	Not stated	4 themes. (1) Perceived risks associated with alcohol in the population: negatives of drinking outweighed positives. (2) Perceived risks associated with drinking during conception: women pregnant unexpectedly / quickly expressed more relaxed views. (3) Perceived risks: majority pregnant women & many midwives unaware of risks. All stated abstention ideal. Guilt was the motivation for abstaining. (4) Social implications of abstaining: social expectation to abstain. Pregnant women wishing to hide pregnancy described ways of hiding they were not drinking.	<i>Quality Assessment:</i> The analysis was not described in sufficient detail to enable judgement of the validity of the findings. The study lacks any theoretical grounding & the analysis is descriptive. Telephone interviews are unlikely to result in the level of depth of exploration that may otherwise have been possible. Inappropriate limitations were cited, small sample size was stated as a limitation but this was juxtaposed to claims that data saturation had been reached. <i>Implications of Quality Assessment:</i> This study was not relied upon heavily to deepen understanding of concepts during analysis.

Author	Study Aim	Study year & Setting	Theoretical Approach	Participant characteristics	Study Design	Sampling strategy	Analytic Approach	Summary of main findings	Narrative summary of study quality
Burton-Jeangros, 2011 [159]	Examine personal agency & social influence in lifestyle decisions made by pregnant women.	French speaking Switzerland. 2008-2009.	Ideas of risk management & the agency of pregnant women are drawn upon. This is influenced by theories of risk surveillance, healthism, biomedicalisation, integration of expert risk discourses by lay individuals & medicalisation of pregnancy & birth.	50 pregnant women. Aged 24- 41, mixed parity, ≥ 50% University degree.	Face to Face interviews	Purposive sampling of 'normal' pregnancies	Not stated	Women adopted opposing interpretations medical norms, caution & resistance. Caution: women eager to ensure the good health of their fetus, control via scientific knowledge was important. Associated with healthy behaviours & precautionary principles Resistance: women described medical expectations regarding daily behaviours as too high. Some claimed the right to make their own choices. Discussed extensive personal bargaining's with professional advice. Expert advice reassessed in light of lay or practical knowledge. Women regulating behaviours in a social context. Pregnancy enhances public reactions to unhealthy behaviours.	<i>Quality Assessment:</i> The study provides a detailed analysis that is clearly situated within a theoretical framework. The choice of methods was appropriate for the aims. However, the analysis was not described in sufficient detail to give any judgement of the validity of the findings. Also, high SES was over-represented. <i>Implications of Quality Assessment:</i> The depth of analysis meant that this study was relied upon heavily to develop understanding of several concepts, it was this study that described the effect on alcohol consumption during pregnancy of the conflict between personal motivators to drink and fear of social censure.

de Bonnaire & Falloon, 2014 [150]	Provide in-depth understanding of the factors influencing alcohol drinking practices during pregnancy.	July 2014. Greater Wellington region, New Zealand.	Not stated	24 pregnant or recently postpartum women. 9 pregnant, 15 recently postpartum. 16 stated not ok to drink in pregnancy, 8 stated ok to drink a little. Range of age (18 to 43), SES and ethnicity (6 Maori, 6 Pacific, 12 European and other). 50% first pregnancy.	Face to face interviews	Purposive by ethnicity, attitude to drinking, age, SES and parity	Thematic	3 themes (1) Attitude & behaviours in relation to prenatal drinking. Attitudes reflected self-reported behaviour. All thought heavy / binge consumption & drinking in first trimester unacceptable. (2) Factors influencing prenatal drinking: women's pre-pregnancy drinking influential. Drinking in pregnancy was relaxing. Anxiety regarding fetal health reduced desire to drink. Anxiety not influenced by knowledge of FASD, risks misunderstood. (3) Influencers & role of information & advice on attitudes. Maternity carer influential in determining behaviours. Advice from other mothers sought. Social influencers most pronounced in those not holding strong views.	<i>Quality Assessment:</i> there is an absence of a theoretical framework & there was no attempt to situate the results with relevant literature. There was no information provided about the methods of analysis in order to judge validity of findings. However, the authors had performed a preceding literature review and performed purposive sampling based on the findings of this. The findings are reported extensively & quotes used extensively to justify conclusions. <i>Implications of Quality Assessment: the breadth & depth of the analysis meant that this study was referred to throughout.. In particular, the authors provided a nuanced approach to risk perception & attempted to link influencing factors to behaviour.</i>
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Author	Study Aim	Study year & Setting	Theoretical Approach	Participant characteristics	Study Design	Sampling strategy	Analytic Approach	Summary of main findings	Narrative summary of study quality
van der Wulp et al, 2013 [163]	Two studies: (1) exploring what alcohol advice Dutch midwives give to their clients; (2) explore what information Dutch pregnant women & partners receive about alcohol use in pregnancy. This systematic reviews focusses on study 2 only.	Central and southern regions of The Netherlands. April to June 2011	I – Change Model of individual behaviour change. This incorporates concepts from several social cognitive models. Assumes individual behaviour influenced by preceding factors (e.g. behavioural / psychological & socio-cultural) & information factors (e.g. how messages are framed & who delivers them).	Pregnant women (n=25) & their partners (n=9).	5 focus groups (n=1 pregnant drinkers, n=2 abstainers and drinkers, n=1 partners, n=1 couples, abstainers & drinkers. 4 interviews drinkers	Convenience sample	Qualitative content analysis	4 themes: (1) Behaviour. All pregnant drinkers reduced consumption. (2) Partners discussion about alcohol in pregnancy, abstainers rarely discussed alcohol use in pregnancy, drinkers did discuss on guidelines & views with partners. Pregnant women did wish partners consumption to change. (3) Information factors: Information obtained via midwife, internet or GP. Women drinking in pregnancy were more likely to report conflicting advice. Abstainers satisfied with advice, drinkers less so. (4) Awareness factors: FAS only mentioned by a few. Non-drinkers able to report in more detail deleterious consequences of drinking.	<i>Quality Assessment:</i> The study provides an analysis that is situated within a theoretical framework. However, it is unclear if any alternative theoretical frameworks were considered. The methods & results are poorly reported, preventing an in-depth understanding of findings. It is unclear why both focus groups & interviews were used. The focus groups were very heterogeneous. <i>Implications of Quality Assessment:</i> The lack of depth of the analysis meant this study was not relied upon heavily. However, it did provide an interesting deviant case in reporting that partners were implicated in the decision making process.

Author	Study Aim	Study year & Setting	Theoretical Approach	Participant characteristics	Study Design	Sampling strategy	Analytic Approach	Summary of main findings	Narrative summary of study quality
Hammer & Inglin, 2014 [160]	To examine pregnant women's perceptions of the risks of smoking and drinking during pregnancy.	French speaking Switzerland. 2008-2009	The study situated in a socio-cultural approach to risk, examining how social pressures influence perceptions of risk & considering meaning that individuals give to risk.	50 pregnant women. Aged 24- 41, mixed parity, ≥ 50% University degree.	Face to face interviews	Purposive sampling of 'normal' pregnancies	Thematic	3 themes (1) Abstinence, compliance & questioning. Harms acknowledged. Abstinence from smoking widely accepted but not alcohol. Abstainers presented as responsible mothers. Alcohol advice in pregnancy unclear. Moderate drinking justified by experience. (2) Contextualisation of risk in daily life: types of alcohol affected riskiness. Abstinence compatible with occasional drinking. Tobacco dangerous irrespective of amount consumed. (3) Morality of maternal smoking & drinking: smoking viewed as addiction. Critique of drinking focussed on the amounts consumed. Moderate drinking framed by autonomy & duty.	<i>Quality Assessment:</i> As with Burton – Jeangros [159], this study provides an in-depth analysis that draws upon a relevant body of sociological theory. The choice of methods was appropriate for the aims. However, the analysis was not described in sufficient detail to give any judgement of the validity of the findings. Also reliance on snowball sampling meant that high SES was over-represented. <i>Implications of Quality Assessment:</i> The specificity of aim meant that this study was primarily utilised in developing the concept of risk perception, in particular how prenatal alcohol use was framed in comparison to prenatal smoking.

6.3 Analysis of the findings of the included studies

After detailed reading of the included studies four concepts and 10 sub-concepts were identified that have been described by the authors as bearing influence on women's decisions regarding alcohol use in their pregnancies.

The term concept has been used rather than theme because not all studies reported their findings as themes. It is important to note that this analysis of the findings of the included studies did not involve basic description of the results sections of the included studies. In order to facilitate effective comparison of the findings between the studies, it was necessary to re-organise the findings of the included studies to bring together all occasions in which related ideas were mentioned by the authors. For example, the concept 'good motherhood' refers to every occurrence of the idea of women placing the needs of their fetus above their own even if this occurrence was not termed as good motherhood by the authors. For example, within Baxter et al [158] this was referred to as the 'discourse of responsible motherhood'. The concepts were tabulated according to the study or studies that discussed them (Table 6-2) and then discussed in more detail.

Table 6-2: Summary of key concepts listed in included studies

Concepts and <i>sub-</i> concepts	Study Reference											
	Barbour [156]	Baxter [158]	Branco Kaskutas [157]	Burton – Jeangros [159]	Jones & Telenta [162]	Raymond et al [161]	Root & Browner [86]	Toutain 2010 [164]	Toutain 2013 [165]	van der Wulp, et al [163]	Hammer & Inglin [160]	de Bonnaire & Falloon [150]
How pregnant women access & respond to medical norms			✓			✓		✓	✓	✓	✓	
<i>How women accessed medical norms</i>	✓											
<i>How women responded to medical norms</i>				✓			✓	✓	✓	✓	✓	✓
Significance of alcohol in pre-pregnancy life	✓	✓							✓			✓
Perceptions of Risk												
<i>Incomplete knowledge of potential dangers</i>	✓		✓		✓	✓		✓	✓	✓		✓
<i>Misconceptions about the dangers some forms alcohol</i>			✓					✓	✓		✓	✓
<i>Response to Risk</i>	✓			✓	✓	✓		✓	✓		✓	✓
<i>Personal influences on risk</i>						✓		✓	✓		✓	✓
Agency & social regulation of agency												
<i>Agency</i>		✓			✓	✓						
<i>Social regulation of agency</i>	✓		✓	✓	✓		✓	✓	✓		✓	✓
<i>Good Motherhood</i>		✓		✓	✓	✓	✓	✓	✓		✓	
<i>Specific roles in social regulation</i>	✓			✓			✓			✓		✓

6.3.1 How pregnant women access and respond to medical norms about alcohol use in pregnancy

How women accessed medical norms:

This is defined as instances in which study participants described being aware of medical norms regarding alcohol use in pregnancy, either through advice by medical practitioners, understanding of Government Guidelines and / or awareness of primary prevention campaigns. This was discussed in seven of the included studies [156, 157, 160, 161, 163-165]. A finding common to all included studies was that participants did not report relying solely on information given to them by a healthcare professional, instead they described drawing upon a variety of sources. For instance, all participants within the study by Hammer and Inglin acknowledged that drinking in pregnancy could be harmful and referred to information gathered from a range of sources, including their healthcare professionals, public health campaigns and literature produced for pregnant women [160]. In the study by Barbour [156], every participant was asked where she received information about alcohol use in pregnancy. None of the women reported being asked about alcohol use or advised to abstain by health care providers. Further, it is notable that 60% of the women stated that they had been advised that the occasional drink was not likely to be harmful. It is possible that this is because this study was published in 1990 in the USA since guidelines recommending abstinence were not introduced in this country until 2005. Indeed, Barbour [156] states that *'it is common practice to advise the pregnant woman who is having difficulty sleeping or who is fatigued from prodromal labour to take a warm bath and have a glass of wine'* (page 83). However, no evidence was provided to support this statement. In the study by Branco and Kaskutas [157], one of the three themes discussed was 'Exposure and Believability of Messages'. Interestingly, women did not discuss the impact of Government Guidelines on drinking. Instead they focussed on primary prevention programmes, namely the warning label on drinks and local public health advertising campaigns. Women stated that the drinks warning label was needed, but no evidence was provided to indicate that the warning label had had any effect on the women's own drinking behaviour. Indeed one woman stated that she only looked at the labels to question why she was not yet feeling intoxicated. Also, women stated that public health campaigns could become so extreme that they were unbelievable. The study by Raymond et al [161] discussed two relevant themes; 'Influence of confusing or unclear advice on drinking in

pregnancy' and 'Attitudes towards available advice: advice lacks reasons, evidence or sufficient detail'. The former theme, 'Influencing of confusing or unclear advice on drinking in pregnancy', was deductive. The authors explored this issue with participants because the study was performed in 2007, during the media interest in the UK guidance change. Women found conflicting advice to be concerning and confusing, one participant framed this concern in terms of emotional difficulty because of failure to find reassurance *'It's very difficult to feel very reassured with any of the advice because everything conflicts so much. So.....it has been very difficult'* (page 5 of 8). The latter theme, 'Attitudes towards available advice: advice lacks reason, evidence or sufficient detail', was also explored deductively. This reflected the publication of the systematic review by Gray and Henderson [175], in which consistent evidence for deleterious effects of light to moderate drinking during pregnancy was not found. Study participants stated that advice lacked justification; this was particularly problematic when advice was given by Midwives or General Practitioners. One participant was quoted as saying *'So there's not really much in the literature that you get from the midwife. They just tell you not to drink and don't tell you why'* (page 5 of 8). In the first study published by Toutain [164], women described acquiring information about alcohol during pregnancy in many different ways. Notably, information given by health professionals during antenatal visits did not appear to be a primary source of information. Obstetricians were seen as a source of contradictory information and thus women relied upon the advice given by their own mothers and in media sources. Some women with University level education reported accessing scientific articles. In contrast, in Toutain's 2013 follow – up study [165], women reported accessing information primarily through the internet and they did not discuss referencing scientific articles. Despite the continued attempts to educate French healthcare professionals about FASD since 2007, women within the follow up study often did not mention advice offered by health care professionals and, when they did, their discussions revealed similar confusion and contradictions present in the original study. Interestingly, when healthcare professionals did adopt a clear abstinence only policy, women frequently doubted the legitimacy of this message. One woman was quoted as *'zero alcohol, is just a way for your OB/ GYN (obstetrician / gynaecologist) to protect himself. He informs you, and if you drink too much during your pregnancy and if your baby has a problem, you cannot blame him, because he has informed you. Doctors protect themselves!'* (page 20-21). The study by van der Wulp [163] revealed a similar picture of pregnant women seeking information from a variety of sources and healthcare professionals offering confusing advice,

with some recommended abstinence but most stating that low level consumption was acceptable. Also, participants in this study limited their reliance on the internet to perceived reliable sources, in particular those published by government bodies or health professionals.

How pregnant women respond to medical norms about alcohol use in pregnancy

This sub-concept details how women integrated their knowledge of the medical norms (as described in the previous sub-concept) into their decisions regarding alcohol use in their pregnancy. Notably, six of the seven studies that described how women accessed medical norms did not attempt to analyse this and so the participants' accounts were limited to describing what information they were aware of or had received during their pregnancy. The exception to this was the study by Hammer and Inglin [160], in which participants that continued to drink in pregnancy explained that the recent changes in the guidelines caused them to doubt their validity, with one participant viewing the new requirement for abstinence as a '*a fashion thing*' (page 26). Further, conflicting advice was referenced by participants as a reason to continue to drink, in particular women referred to some healthcare provider's acceptance of moderate drinking. The integration of medical norms into women's decision making was also discussed in detail in two of the other included studies [86, 159]. The study by Root and Browner [86] attempted to analyse how pregnant women assess what is the most appropriate behaviour by assessing the role of medically generated norms and subjugated norms, i.e. those derived from personal experience and / or knowledge of their own bodies. A critical finding of this study was that both medical and subjugated norms played roles in women's decision making. Deciding how and when to rely upon the different sources of knowledge was a complex, dynamic process. Interestingly, when discussing alcohol use during pregnancy, the authors added a further layer of complexity to how women responded to medical norms. They drew upon the accounts of one participant who simultaneously accepted the validity of scientific evidence regarding the teratogenicity of alcohol and her father's belief that beer consumption would help her milk production. As a consequence, she continued to consume low levels of alcohol in her pregnancy. There is not always a connection between knowledge and behaviour.

The study by Burton-Jeangros [159] aimed to assess the agency developed by pregnant women and the mediating role of social influences. Intrinsic to this study was the concept that some women rejected medical norms for their pregnancy. These women were

described as resistant and were explicit that their rejection of medical norms was reflected in their subsequent behaviour (the strategies used by these women and the justifications applied for their resistance are discussed in later sections). Further, in the study by Toutain [164] women were described as adapting the Government guidance of abstinence to fit in with the environment of cultural norms in which they operated. The research by de Bonnaire and Falloon [150] provided more evidence of medical norms being moulded to comply with women's accounts of their alcohol behaviour in pregnancy. For example, whilst New Zealand recommends total abstinence during pregnancy, participants continuing to drink cited the UK's NHS website as providing reassurance that low level consumption was safe. This study also provided a different viewpoint on the role of medical professionals. They found that a woman's lead maternity carer, most frequently a midwife, was the person most likely to influence a pregnant woman's decision regarding her health behaviours in pregnancy. The stronger a woman's relationship was with her midwife, the more influential she became, *'I just wanted to clarify. My midwife said no (alcohol in pregnancy), so I took her word for it'* (page 30). However, it is arguable that the straightforward manner in which the authors presented the role of the midwife was then contradicted in the theme 'The quality of information and advice coming from lead maternity carers'. Here it was detailed that women often found the advice given about alcohol in pregnancy from their midwife to be lacking substantiation. This proved to be acceptable for women that were already likely to abstain. However, for women who wished to continue to drink, the failure to provide a rationale for why they should stop drinking resulted in them being likely to discount their midwife's advice. Similarly, in the study by van der Wulp [163] women who continued to drink in pregnancy indicated that they were less satisfied with their midwives' advice about alcohol than women abstaining. They stated that simply stating that drinking was not acceptable was not enough, the information should focus more on why alcohol should be avoided.

It would appear that participants did not recount medical norms as having over-riding importance in their decision making process regarding alcohol use in pregnancy. Rather this decision appears to be influenced by a complex network of social and personal factors. In particular, the evidence provided within this systematic review points to the importance of the significance of alcohol in pre-pregnancy life, perceptions of risk and the interplay between agency and social regulation of agency. Each of these concepts will now be discussed in turn.

6.3.2 Significance of alcohol in pre-pregnancy life

Barbour [156], Baxter et al [158], Toutain 2013 [165] and de Bonnaire and Falloon [150] were the only studies that considered the significance of alcohol in pre-pregnancy life. The concept is termed 'habit' by Barbour and is referred to quantitatively, with 57% of the 20 women interviewed who drank before pregnancy reporting a continuation of alcohol use in pregnancy. Barbour infers from this that women who drank before were more likely to drink during pregnancy. However, it is difficult to justify this conclusion on the basis of the data presented in the study because an attempt is being made to draw quantitative inference from data which has been gathered for qualitative purposes. Within the study by Baxter et al [158], the authors state that *'In order to understand participants' reports of who they talked to about drinking and pregnancy and the social-ideological discourses that informed this talk, it is necessary to provide a description of the broader context of meaning in their lives that surrounds talk about drinking in general'* (pages 232-233). The authors then explain in detail that many of the participants (74 % of the 60 interviewed) experienced family histories complicated by problematic use of alcohol and that these women were socialised not to discuss alcohol use. However, critically, the authors did not provide evidence of discussions with participants about how their family histories affected their own alcohol use and thus the importance of alcohol for themselves. Toutain 2013 stated that women who were abstinent prior to pregnancy were also abstinent in pregnancy [165]. The reliance upon talk within internet forums resulted in an inability to engage women in further discussion and attempt to understand how previous alcohol use has affected drinking in pregnancy. The study by de Bonnaire and Falloon represented the only attempt to understand drinking in pregnancy in terms of the significance of drinking in life pre-pregnancy [150]. They found that those study participants describing alcohol as important in pre-pregnancy life were less disposed to abstain in pregnancy and vice-versa, *'I like the effect alcohol has on me because it's nice. It's a nice feeling. You're relaxed and it's a nice taste. It makes me feel good and if I had to give that up, I'm like, why?'* (page 20).

6.3.3 Perceptions of risk

Perceptions of risk was a concept running throughout the body of literature included within this review, absent in only two of the studies [86, 158]. In both of these studies, the absence of explicit discussion of perception of risk was likely due to the 'theoretical lens' of the authors. Discussions of risk within the included literature focussed around the following

factors: (1) incomplete knowledge of the potential dangers of alcohol use during pregnancy; (2) misconceptions about the potential dangers of certain forms of alcohol; (3) management of risk and (4) personal influences on risk.

Incomplete knowledge of the potential dangers of alcohol use during pregnancy

A central finding in the included studies was that women were largely unaware of the potential effects of drinking during pregnancy. Barbour [156] discussed the idea of 'knowledge and beliefs', meaning that the pregnant women within her study were found to hold misconceptions about the potential dangers of alcohol use. Critically, Barbour did not attempt to explore the effects of these misconceptions on a woman's behaviour; instead the author stated that '*although knowledge alone does not guarantee compliance, it at least allows women to make informed choice*'. As with Barbour, women in the study by Branco and Kaskutas [157] were described as having a poor level of knowledge regarding FASD, with some women thinking that the effects were transient and a child would grow out of them. Again, similarities with Barbour exist because the authors failed to attempt to draw any links between a woman's level of knowledge and the influence this may have had on her subsequent behaviour.

In the first study by Toutain [164], perception of risk was also talked about in terms of the lack of understanding of the consequences of drinking during pregnancy. It was of note that discussions about the consequences of drinking did not feature heavily within the forum conversations; only 20% of the internet users mentioned this. This was further evidenced by Jones and Telenta [162], where pregnant women were unaware of the specific risks of alcohol consumption in pregnancy. However, there was some evidence provided by the study by Raymond et al [161] that it was women's concept of the level of risk posed by alcohol use in pregnancy, rather than specific forms of harm, which influenced their decision to drink. They found that women who were unsure of the risks or thought there was high risk were most likely to abstain. In the follow up study by Toutain [165], there was a different emphasis on the discussions of the dangers of drinking during pregnancy, women focussed on perceived safety of consumption in the immediate first weeks after conception. Women felt that this was a time in which alcohol could not affect the developing embryo because the embryo was not yet reliant upon the maternal blood supply. There was no consensus regarding at what point in embryonic development this would change. Therefore,

drinking prior to pregnancy recognition was not considered to be a concern by the women. In addition, women viewed the first pregnancy ultrasound as having the ability to detect prenatal alcohol damage, assuming that the effects were on cardiac structure / function.

Within the van der Wulp [163] study abstinent women were more knowledgeable about the effects of alcohol consumption in pregnancy. However, only a very few study participants discussed FAS as a possible consequence. In the analysis provided by de Bonnaire and Falloon [150], a more complex picture of the articulation of knowledge emerged. The author's again noted a general lack of understanding of FASD amongst pregnant women and concluded that *'women's (mis)understanding of the risks was based on assumptions, personal experiences, observations and advice and information from others'* (page 25). Further, there was a difference in levels of understanding concerning the potential risks resulting from what was understood to be 'heavy' alcohol consumption in comparison to 'moderate – occasional' drinking. Participants were described as being unsure of the potential riskiness of moderate- occasional drinking. In comparison, they all stated that heavy or sustained drinking in pregnancy would have detrimental effects on the developing child. However, the way in which they expressed this knowledge differed. For some it was based on what they perceived to be factual knowledge. For others it was based upon a general sense that heavy alcohol use was not good for a pregnant woman and therefore couldn't be good for the baby or having personal experience of someone who drank heavily in pregnancy. Further, even though participants felt confident articulating that heavy prenatal alcohol use was harmful they were unable to explain what these harms may be, *'I'm going to make guesses here, because I haven't done research. I would suspect that it would affect baby's growth, baby's brain development, and possibly the baby could possibly come out, having withdrawals'* (page 27). Also, within this study there were attempts to link together knowledge and subsequent behaviour. Women who assumed that the fetus was protected from alcohol by the placental barrier used this as part of their reasoning to continue drinking in their pregnancy, *'I would imagine just that gentle kind of soporific effect that you would have from a glass of wine if you weren't used to it, but it would be in a much more diffused level for a baby as it passes through your system. So, I don't think it would be too bad'* (page 28). Conversely, women who thought that the effects of alcohol consumption were amplified on the fetus were more likely to abstain, *'you don't want to be giving*

anything toxic to your baby and obviously, babies are smaller. So you don't want to be drinking even little bits because it's going to affect them more' (page 28).

Misconceptions about the potential dangers of certain forms of alcohol

Within the study by Branco and Kaskutas [157], women were described as frequently thinking that different alcoholic drinks had different effects on the fetus in utero. The harmful potential that each form of alcohol held was judged in varying ways; *'how much the alcohol burned going down her throat, the amount she drank, and the distinction between hard liquor and wine coolers contributed to each woman's personal scale of alcohol strength and / or potential for harm'*(page 337). Within the study by Hammer and Inglin [160], similar differentiation in risk perception was evident, with participants incorporating the type of alcohol (wine and beer did not constitute a risk but spirits did) and quantity / frequency of consumption into their judgements. The study by de Bonnaire and Falloon repeated these findings, again participants judged wine and beer to be acceptable but spirits were not [150]. In particular, women referenced the medicinal qualities associated grapes and red wine *'I actually don't even drink red wine, but if I did drink that's what I had ... Yes, wine, a bit of grapes to justify it a bit'* (page 18). The same ideas were identified in both studies by Toutain [164, 165], where women stated that only certain forms of 'strong' alcohol were dangerous. This belief was ubiquitous in the first study, but in the second the more socially privileged women talked of the need to consider equally all forms of alcohol; one woman was quoted as saying *'the kind of alcohol makes no difference only the quantity you drink matters. In a bar, a G and T (gin and tonic) or a glass of wine or a beer contain exactly the same quantity of alcohol'* (page 18-19).

Response to risk

There was evidence that women who continued to drink in pregnancy often did not entirely negate the potential risk of alcohol, instead they sought to incorporate and explain the risk of alcohol use in their pregnancy. For the purposes of this systematic review, this is referred to as response to risk, and it was discussed in varying ways in the included studies. In Barbour [156], this idea was termed as 'benefits and risks', the author described most women within the study reaching their decision about alcohol use in their pregnancy by balancing the potential dangers of alcohol and the perceived benefits. This was evidenced by

the testimony of one woman, who was described as having knowledge that alcohol was not good for her baby but remained unconvinced that it was actually harmful, and for her, the relaxation effects of alcohol were more important. The study by Burton – Jeangros [159] examined the interplay of perception of risk and agency to determine if women complied with or resisted the medical regulation of ‘every day health risks’ during pregnancy. As a consequence, ideas of risk were central to the discourse of this study. Women were described as either taking a cautious or a resistant approach to risk. Cautious women were more likely to comply with medical definitions of health risks because control provided by scientific knowledge was important. Resistant women were more likely to challenge the concept of medically defined risks in pregnancy. Whilst not completely rejecting the idea of risk, they instead operated within a spectrum of management of risk to acceptable levels. This was most evident within alcohol and cigarette smoking, where numerical reductions in the quantities consumed reduced risk to acceptable levels without forcing abstinence. This similarity in the management of risks posed by both smoking and drinking contrasted with the study by Hammer and Inglin [160]. One of the main findings of this research was that smoking and drinking were viewed differently in terms of risk. The risks posed by smoking were generally accepted by study participants and the abstinence recommendation within official guidance was not questioned. The narratives of those participants continuing to smoke in pregnancy indicated that it was only justifiable as a method to mitigate what they judged to be the more harmful effects of stress. In contrast, the risk perception of alcohol was more complex and centred around the acceptability of moderate consumption. Participants referred to the various methods they employed to ensure that their drinking remained within acceptable levels; for example drinking alcohol at the same time as eating food was felt to be a way to mitigate risks. Also, women referred to watching themselves for signs of intoxication and then reducing or stopping drinking to ensure that their drinking remained within what they considered to be safe limits.

In addition to differences in risk perception, Hammer and Inglin [160] also discussed the differing moral constructions of smoking and drinking in pregnancy. Smoking was discussed in terms of addiction to a drug and a moral evaluation of pregnant smokers as women incapable of overcoming this addiction to perform their duty emerged from narratives. The accounts of pregnant smokers revealed guilt and a sense of failure to act as a good mother.

Women smoking in pregnancy were subject to public judgement and censure. Drinking in pregnancy did not have the same moral implications.

In both studies by Toutain [164, 165], ideas of the negotiation of risk were also prevalent. The French government recommend abstinence during pregnancy, but the women communicating on the sampled internet forums interpreted abstinence as low levels of alcohol (with the exception in the 2013 study [165] of those declaring themselves to be abstinent pre-pregnancy or working as healthcare professionals). Within the first study, Toutain [164] stated that this was because alcohol was seen as an integral part of French life. Within the second study, the author concluded that: *'For most women prevention against alcohol consumption during pregnancy concerns alcoholics, thus freeing themselves from the excessive social constraint that abstinence represents for them'* (page 19) [165].

The study by Jones and Telenta [162] provided a contrast to the idea that alcohol had benefits in pregnancy. In this study, the perception of risk of drinking in pregnancy was compared to perception of risk of drinking in the population as a whole. Participants readily mentioned the negative effects of alcohol consumption in the population and that, although positive effects of moderate alcohol consumption were mentioned, the negative effects far outweighed the positive effects. This was in contrast to drinking in pregnancy, in which participants were unable to mention any positive effects. It is important to note that all of the pregnant women interviewed in this study identified themselves as abstaining from alcohol in pregnancy. Interestingly, this was the only study in the included literature that identified that for some of the women interviewed the decision to drink or not in pregnancy was not motivated by perceptions of risks. It was instead motivated by feelings of building a bond between themselves and the baby as the pregnancy developed. Thus, women drank at low levels in early pregnancy because they felt comfortable with the risks but not later in the pregnancy, when emotions prevented consumption. The study by Raymond et al [161] echoed others in that women also discussed the management of risks in terms of balancing the potential harms of alcohol with the perceived benefits, which were most frequently explained as the stress relieving effects of alcohol consumption. The study by de Bonnaire and Falloon [150] again found that participants discussed benefits of alcohol consumption and the effect of stage of pregnancy on the perceived riskiness of drinking. Interestingly, this research also identified anxiety about pregnancy in general to have an effect on drinking behaviour. Those women more anxious about their pregnancy (identified by the authors as

those at the extremes of the age spectrum, with experience of fertility problems, in their first pregnancy or having a planned pregnancy) were described as being more risk averse and thus less likely to drink, '*...in my position, with my history, I'm a lot more nervous and cautious than other people ... she's so precious to us that there's no way we are taking any risks*' (page 22) [150].

Personal influences on risk

An additional way in which pregnant women incorporated concepts of risk into their everyday lives was by relying on the contextual evidence of the outcome of their own previous pregnancies or the pregnancies of women within their social network. Reassuring examples of positive outcomes when it was known that the mother had consumed alcohol were used as justification for the safety of drinking in pregnancy by participants in five included studies [150, 160, 161] [164, 165]. Hammer and Inglin stated that '*For these women, personal experience was a more trustworthy source than science in shaping their judgements of risk*' (page 27) [160]. In that later Toutain study [165], it was judged that this experience was particularly important for women from less privileged backgrounds because their discussions revealed a greater reliance on the advice and experience of their mothers and grandmothers. de Bonnaire and Falloon [150] found that the experiences of other women were particularly important for those pregnant women continuing to drink who found the failure of healthcare professionals to justify their recommendations problematic. In the study by Root and Browner [86], the women who were termed as being resistant to biomedical norms regarding health behaviours in pregnancy were those who '*assert another kind of authority- generally haptic and experiential*' (page 215). These women were described as more likely to use the experiences of other women's pregnancies as evidence to justify their own behaviour.

6.3.4 Agency and Social Regulation of Agency

There is an interesting interplay within the included studies of the concept of a pregnant woman's desire for personal agency, i.e. her right to decide for herself and her baby what was appropriate behaviour, and the social environment within which personal agency was mediated.

Agency

The concept of a pregnant woman's agency in decision making was strongly suggested by the study by Baxter et al [158]. The primary finding of this research was that women did not appear to openly discuss their decision regarding alcohol use in pregnancy. This was grounded in the belief that drinking during pregnancy was an individual choice, termed the discourse of individualism. However, women abstaining from alcohol during pregnancy were over-represented in this study (less than five percent of the 60 women interviewed indicated they drank after pregnancy recognition). Thus, the study population could be described as compliant with prenatal medical norms with regards to alcohol use in pregnancy. This is important because Burton- Jeangros [159] described compliant women as being less likely to talk about pressures from the social network to adopt certain behaviours in pregnancy. Further, 74% of the 60 women interviewed disclosed family problems directly related to excessive alcohol consumption. These women commonly held the view that talking about drinking with people who wished to drink was futile. They were socialised not to talk about drinking and it is possible that this extended to alcohol use in pregnancy. Thus, the view that alcohol use in pregnancy was a personal choice may have been more prevalent within this specific study population than in pregnant women in general. However, the right that pregnant women felt to make decisions regarding their own pregnancy was expressed in three of the other included studies [159, 161, 162]. In the study by Jones and Telenta [162], women stated the importance of not judging other women's decisions regarding alcohol use in pregnancy. In Raymond et al [161] the concept was apparent in two of the authors' themes: the need to respect individual differences and taking responsibility for own health. In the former theme, it was stated that women were cognisant of the differing effects alcohol can have on individuals and thus it was important to consume alcohol in a way that was comfortable to the individual. In the latter theme, the concept of agency was directly discussed, with women expressing the desire to make informed choices for their own health and for their child and rejecting the level of governmental involvement in pregnancy health behaviours. In the study by Burton-Jeangros [159], women who were classed by the author as being resistant to medical prenatal norms were those that expressed the desire to have agency over their own health. These women emphasised the importance of being able to make their own choices and in making decisions they valued *'their own experience and knowledge more than abstract risks defined by experts'* (page 426) [159].

Social regulation of agency

Despite pregnant women making claims about agency over their pregnancy, it was clear from the evidence within the included studies that drinking in pregnancy was a socially regulated activity. There is a general dichotomy within the included studies that discussed the concept of social regulation between those studies that described social pressure to continue drinking [156, 157, 160, 164, 165] and those that described drinking in pregnancy as a socially censured activity [86, 159, 162].

Barbour [156] discusses the finding of 'social situations and social pressure', stating that women discussed feeling under pressure to drink socially. However, no data were used to substantiate these claims and there is no detail provided about how the women experienced and recounted the social pressure to continue to drink. In the study by Hammer and Inglin [160], participants described social events as times in which they were expected to participate by drinking; this expectation legitimated alcohol consumption temporarily. Further, participants discussed the social acceptability of moderate drinking, it was only heavy consumption that was considered unacceptable '*If I see a pregnant women having a drink, I would tell myself that it could be me, but if I see her totally drunk, that's very different, I will tell myself, 'she's an idiot.'*' (page 30). The women that took part in the focus groups described in the study by Branco and Kaskutas [157] also described feeling social pressure to drink. This is elaborated with the Native American participants, who describe their role as a pregnant non-drinker as that of a social outcast. Women talked about excluding themselves from social situations in order to maintain their abstinence. In the first study by Toutain [164] the author found that very few women discussed social pressure to stop drinking. In the later Toutain study [165], some women talked of the social pressure to maintain alcohol consumption when pregnant. This is interesting, given the continued FASD education campaigns that occurred in France in the years between these two publications.

The idea of drinking during pregnancy as a socially censured activity was explored in depth within the study by Burton-Jeangros [159]. Participants who resisted medical norms with regard to many health behaviours, including alcohol use, described many occasions of social censure. It is the evidence provided within this study and the interpretation by the author that enabled a link to be made between personal concepts influencing the decision to drink alcohol during pregnancy (i.e. perceptions of risk) and the social environment in which pregnant women existed and to which their behaviours were judged, and to some extent, regulated. The author stated that '*beyond personal strategies and arguments... women were*

regulating their behaviours in a social context, participating in social events and being exposed to social reactions... it would seem that pregnancy enhances public reactions to unhealthy behaviours, owing to the moral imperative associated with motherhood that facilitates intrusion of others into private decisions' (pages 431 to 432). The influence of social pressures on the personal factors that influence the decision to drink during pregnancy was also discussed in the study by Root and Browner [86]; here the authors referred to a 'moral logic' of public surveillance of pregnant women. The evidence for this moral logic is provided by use of quotes where women described feeling resentment that they were subjected to seemingly endless unsolicited judgements regarding their pregnancy. However, it should be noted that the authors did not explicitly talk about the use of alcohol as part of this moral logic. Social pressures were also discussed in Jones and Telenta [162]. The participants in this study did not describe occasions of social judgement because they were seen to be drinking in pregnancy. Rather the participants expressed the view that there was an underlying expectation not to drink when pregnant in Australia. Thus, women described the difficulties in hiding pregnancies in the early stages, if women were not engaging in social drinking it was assumed they were pregnant.

The consideration of the social regulation of drinking in pregnancy provided in the report by de Bonnaire and Falloon [150] differed from the research described above. Rather than a description of this behaviour as either socially prohibited or endorsed, they described social regulation as more nuanced. This was discussed in the theme 'other influencers and the role of social pressure in modifying behaviour'. Influencers were those individuals identified by participants as having the potential to influence their attitudes. These were listed as partners, families, other social networks (i.e. work) and the general public. Both abstainers and women continuing to drink in pregnancy described influencers as having the ability to either reinforce drinking behaviour when they agreed or to make that drinking behaviour feel uncomfortable when they disagreed. For these reasons women were described as avoiding the company of others when they felt they might be pressured to act differently than they wished, i.e. to abstain when they had chosen to drink and vice-versa. For example, one participant recalled a family Christmas in which she felt so uncomfortable drinking that she hid her behaviour '*...I remember Christmas and we'd bought a really nice bottle of champagne. I was thinking, OK, I'll just have one little glass of champagne, but my Mum was really against it. She was making me feel bad about it. I felt uncomfortable, so I didn't drink*

in front of my parents' (page 35). Another participant described a family party in which pressure to drink forced her to leave the party *'We were at my uncle's 50th and there was lots of drinking going on and the cousins were giving me a hard time because I wasn't drinking. I got so sick of it we just left.'* (page 35) [150]. Study participants who did not describe themselves as feeling strongly about their decision to drink or abstain were the most likely to be affected by these influencers. Interestingly, within this study the participants described both social pressure to drink and to abstain, it is possible that this is a consequence of the purposive sampling employed in the study and the resultant diversity of the participant group.

The influence of concepts of Good Motherhood on the social and personal regulation of agency

Within this systematic review the concept of good motherhood emerged within the included studies when participants described feeling required to make sacrifices for the sake of her baby. This existed simultaneously externally and internally. Externally it was evidenced through social judgement. Internally it was frequently described as a motivator to not drink, caused feelings of guilt in women who wished to drink and, thus, potentially moderated their alcohol consumption.

Ideas of good motherhood were prevalent throughout the included studies. In the study by Baxter et al [158] good motherhood was termed the discourse of responsible motherhood. The authors identified two competing discourses, that of individualism (discussed in the agency section of the results of this systematic review) and that of responsible motherhood. The latter is described as being situated within starkly moral language. *'A mother who fails to do everything possible to protect her baby from risk is a selfish, irresponsible and poor mother... the discourse of responsible motherhood is orientated toward duty and moral obligation to put the baby's needs first'* (page 238) [158]. It also of note that this study provided evidence of good motherhood as a concept that existed both externally to the pregnant woman, manifesting itself as social judgement, and internally, manifesting in emotions of guilt or anxiety when the woman perceived herself to have acted as a 'bad mother'. One study participant clearly described feelings of regret regarding the alcohol she consumed before she knew she was pregnant *'It was my worst fear... I felt like such a bad person...If you're going to be a mother, you've got to put the baby first at all costs'* (page

239). Women were also explicit regarding the negative light they held towards other women who drank *'If they drink, they don't deserve to have a baby...they're not thinking of the baby...pregnancy is a time to think about the baby and not yourself'* (page 239). In the study by Burton-Jeangros [159], women were described as either being compliant with medical norms regarding health behaviours in pregnancy or resistant to them. Compliant women were quoted as using concepts of good motherhood to justify their compliance. Further, resistant women acknowledged that their decisions came at the price of ensuing feelings of guilt and anxiety regarding potential health effects to the fetus. The authors concluded by saying that *'taking risks seems incompatible with being a good mother'* (page 430). In the study by Jones and Telenta [162], there was further evidence for the mediating effects of good motherhood on alcohol consumption during pregnancy. All the participants within this study described themselves as abstinent during their pregnancy and frequently referenced feelings of guilt. The authors concluded by saying that women were influenced by two social norms, the drinking norm, which promoted drinking as essential part of social life, and the good mother norm. Notably, this appeared to only cause conflict for participants in the early stages of their pregnancy, when they wished to keep their pregnancy a secret. In the study by Raymond et al [161], good motherhood was again linked to the decision to abstain from alcohol during pregnancy. Further, it was commonly stated that the time limited duration of pregnancy made self-sacrifice manageable. One woman was quoted as saying *'it is only 9 months which isn't very long...So it's not that long really when you've got to think about somebody else's life'* (page 4 of 8). The study by Root and Browner [86] also described women who resisted medical norms as feeling guilt. The authors stated that *'the confessional dimension in many women's narratives is, in many ways, a function of the moral codes which are part and parcel of biomedical precepts surrounding appropriate prenatal behaviour. Even more so, it reflects the extent to which women have internalised these codes in relation to themselves'* (page 221). This was also the only study which provided evidence of women rejecting the notion of good motherhood and acknowledging that they put their own needs above that of their fetus. These women were described by the authors as being openly resistant to prenatal norms and not only resisted prenatal norms but did not express guilt or regret at having done so. It is worth noting that the authors inferred that for some of these women, lack of repentance may have been a method by which they resisted the socially expected guilt of non-compliance.

Specific roles in social regulation

Taking a step further than discussing social pressures in general, some included studies made attempts to analyse specifically who was important within the social environment of pregnant women. Most frequently, this centred around questions regarding the influence a pregnant woman's partner had on her decision regarding alcohol use in pregnancy. It can be argued that this is a consequence of the failure of included studies to capture effectively the views of women experiencing pregnancy without a partner.

In the study by Barbour [156] women were asked what they perceived to be their partner's opinion of their drinking when pregnant. The responses were highly varied, causing Barbour to draw the conclusion that *'subject's perception of how their significant others viewed their drinking behaviours seemed important to women in the study and seemed to impact on their choices to drink or not to drink. However, it was not the only factor that affected the decision of women in this study to drink or abstain'* (page 82). Burton-Jeangros [159] stated that social regulation was, in particular, voiced by the women's partners. To substantiate this claim the author presented three quotes from different participants, all explaining that their partner had an opinion on their behaviours in pregnancy. However, there were conflicting conclusions drawn by the author, who stated on one hand that *'some women considered this external surveillance to be restricting their individual autonomy and inappropriate'* (page 431), then later stating that *'the results presented in this section do indeed show that the reactions of the social environment do indeed temper the resistance of pregnant women'* (page 432). In fact, none of the quotes provided justify the latter claim, with the exception of discontinuing smoking in public. In the study by van der Wulp et al [163], the role of the partner in a pregnant woman's drinking behaviour was deductively examined, as one of the aims of the study was to *'explore what information Dutch pregnant women and partners receive about alcohol use in pregnancy'* (page e90). They found that whilst women abstinent during pregnancy did not report discussing alcohol use with their partner, women who were drinking did. Both the pregnant women and their partners reported that these conversations centred around checking each other's views, knowledge of the guidelines and, critically, discussing if the woman should decrease or cease consumption. One participant was quoted as saying *'I have checked my partners' opinion about drinking the occasional sip, because it is also his child'* (page e95). A further finding was that partners also asked the pregnant women if they should reduce consumption, an act which the pregnant women frequently found

unnecessary. The study by de Bonnaire and Falloon [150] discussed the social regulation of agency in general, as previously discussed, but also specified the partner as having the particular potential to influence a pregnant woman's behaviour. The authors stated that this was because partners spent the most time with the pregnant women and had close relationships with them. Despite this assumption, they found that when the views of a pregnant woman and her partner were divergent the pregnant woman either discount the views of her partner or would agree on a compromise, *'I really wanted to drink, but he (partner) didn't want me to. So we compromised and I'd have half a glass'* (page 36).

In the study by Root and Browner [86] women were described as being on a spectrum from absolute compliance with medical norms through to open resistance to medical norms. Women labelled as absolutely compliant with medical norms *'not only privilege biomedical know-how, they actively relegate the non-biomedical to the realm of non-credible and, at worst, dishonesty'* (page 208). Women situated from the centre of the spectrum through to resisting biomedical norms were more likely to give subjugated norms a role in their decision making. What concerns this section of the analysis of this systematic review is what subjugated knowledge consists of, i.e. when women are not relying solely on biomedical knowledge to guide their behaviour in pregnancy where do they draw their knowledge on what is acceptable behaviour during pregnancy from? When discussing exercise in pregnancy women often relied upon knowledge of their own body to decide what intensity of exercise was sufficient. Women also were quoted as relying upon knowledge from lay sources, in particular their mothers and other women's sources. However, the most salient point in the analysis by Root and Browner was that it was very difficult to answer definitively what sources of information and what voices women listened to. The authors concluded that *'different streams of ...knowledges, rules and experiences yield a variety of pregnant practices that converge in the course of women's daily routines, rendering an 'unconfounded' analysis of each stream impossible'* (page 206). At different times and with regard to different behaviours women drew upon different forms of knowledge.

6.4 Chapter Summary

Within this chapter the findings of the systematic review have been explained. Four of the 12 included studies have been published since 2011, suggesting that alcohol use in pregnancy is becoming an issue of greater medical interest / concern. The included studies

originated from a diverse range of countries, included a range of ethnicities and were published over a time span of 27 years (1987 to 2014). Despite this, there was a consensus in the analysis, none of the included studies provided a very different viewpoint to the others and all results were comfortably discussed in the four main concepts of medical norms (access and response to), the significance of alcohol in pre-pregnancy life, risk (knowledge, perceptions and influences) and ideas of agency and the social regulation of agency. The next chapter is the discussion and within this the findings of the qualitative interviews will be interpreted in the light of the findings of this systematic review and the chosen theoretical standpoint of reproductive citizenship.

Chapter 7: Discussion

7.1 Chapter Introduction

There have been three components to the research presented within this thesis: (1) the theoretical positioning of reproductive citizenship; (2) the analysis of the interviews performed with pregnant women; and (3) the systematic review of qualitative literature. Thus far, these components have been presented as distinct from one another. This discussion aims to bring them together to address the overall aim of the research, to explore women's understanding of their drinking behaviour during pregnancy.

In order to achieve this aim, the key findings of the analysis of the interview data are summarised and critiqued in light of the framework of reproductive citizenship. Both the studies identified within the systematic review and further quantitative and qualitative literature are also utilised. Secondly, the strengths and limitations of this research are considered. Finally, the potential for further research is assessed and some concluding remarks stated.

7.2 Summary and interpretation of key findings

7.2.1 *The need to understand self-regulation during pregnancy as complex and contextual*

A key finding within the interview data is the need to consider alcohol use in pregnancy as a behaviour influenced by social norms. Women's accounts did not focus strongly on medically derived norms, i.e. their knowledge of medical guidance and the input of medical professionals. Rather, they were unified in their explanations that they 'always knew' that pregnancy would result in altered alcohol consumption. I conceptualised this 'always knowing' as evidence of strong social norms surrounding the acceptability of alcohol use in pregnancy.

The systematic review also showed a general lack of the perceived importance of medical norms, medical advice and guidance was only partly influential in women's decision making process regarding alcohol consumption during their pregnancies. Indeed, the study by de Bonniare and Falloon [150] provided the only evidence within the systematic review of medical norms being clearly discussed as important in women's decisions, with midwives noted as the individual most likely to influence alcohol related behaviour. However, study

participants also found the advice given from the midwife to be lacking in detail and women continuing to drink implicated this paucity of information in their justification for discounting advice received from the midwife. Arguably, this finding calls for a more nuanced picture of the role of medical professionals than initially implied by the authors. A study within the New Zealand Maori population also evidenced that women did not solely rely upon medical norms when negotiating their decisions about alcohol use in pregnancy [176]. Participants described placing less weight on health messages that came from people they did not trust, in particular health care professionals and especially doctors. The author concluded that *'the key criteria for assessing messages were their consistency with a woman's framework of rules, and relevance to her current life stage'* (page 97) [176]. This study was not included within the systematic review because it included as participants women who had never been pregnant (see Appendix I). There is also evidence from Australia that changing recommendations regarding alcohol use in pregnancy, in 2001 guidelines were changed from abstinence to permitting low levels of consumption, has had no demonstrable effect upon consumption behaviour [170].

Within both the analysis of interview data and the systematic review, one of the important contributors to the conclusion that medical norms were relatively unimportant to pregnant women was that alcohol advice given by health care practitioners did not feature heavily in women's accounts. This is congruent with the results of the numerous surveys published which attempt to quantify the extent to which healthcare practitioners are aware of, and advise pregnant women about, the risks of alcohol use in pregnancy [177-181]. In 2006, Elliott et al [178] performed a postal questionnaire survey of paediatricians in Western Australia. Whilst the sample size was relatively small (n=179), a high response rate of 74% was achieved. Further, it is likely that some of the respondents would have had much less experience in advising women about pregnancy specific issues than others because there was a wide variation in the average number of pregnancy histories taken per week (ranging from 0 to 99). Despite these limitations, the findings revealed striking variance in how alcohol was addressed prenatally. Notably, whilst 87% agreed that they advised women to consider alcohol use in pregnancy, only 38% stated that this was the only advice they offered. Also, only 48% stated that they found it easy to ask pregnant women about alcohol use and only 23% reported routinely asking about this. Only four percent stated that they routinely provided information about the potential consequences of drinking during

pregnancy. Variable practice was also highlighted in the findings of the Canadian study by Tough et al in 2005 [180], in which the findings of 2216 (representing a response rate of 41%) postal surveys were analysed from a random sample of paediatricians, family physicians, psychiatrists, obstetricians / gynaecologists and midwives. Here the vast majority of service providers, 97.4%, reported routinely asking about the quantity and frequency of alcohol use during pregnancy. However, when women reported moderate alcohol consumption during pregnancy only 48% of health care professionals frequently discussed what the woman meant by moderate use and only 65% reported always discussing adverse effects of alcohol consumption during pregnancy.

It could be argued that the variable practice demonstrated above is a consequence of the fact that the studies arise from different countries, times and with different types of healthcare practitioner operating in different systems of antenatal care. However, there is published qualitative evidence that indicates an underlying issue, that discussing alcohol with pregnant women is not always a straightforward issue. For example, in 2010 France et al [182] performed 19 interviews and five focus groups with a range of professionals involved in antenatal care in Western Australia, aiming to understand in more depth the barriers to communicating the risks of alcohol consumption to pregnant women from the healthcare professionals' point of view. Common themes included the perception that most pregnant women did not drink much and thus they were reluctant to raise the issue as they felt it was not relevant to most of their patients. Further, practitioners also felt that most pregnant women already knew not to drink and so they felt that their role was negligible. There were also issues relating to how practitioners prioritised their care; alcohol was seen as low down the list of priorities for discussion because '*the burden of consultation is huge*' (page 1481) [182]. Practitioners discussed fears that asking about alcohol use would cause anxiety in pregnant women and would imply judgement thereby preventing the vital rapport with their patient. These findings were substantiated by evidence from a further Australian study, in which 12 pregnant women and 12 midwives were interviewed to explore what advice was given by midwives and what advice pregnant women believe they receive about alcohol consumption [183]. A key finding was that whilst midwives stated that they always asked about alcohol consumption, pregnant women could not recall this. When further prompted, women discussed being asked one question (e.g. do you drink?) at the initial visit but not engaged in active discussion. The midwives stated that if women identified

themselves as non-drinkers no further advice was given. Crawford-Williams et al [184] also performed qualitative interviews with 10 Australian health care professionals involved in the care of pregnant women (four midwives, three GPs and three obstetricians). In addition to concerns over time and juggling of priorities, there was also evidence that the professionals themselves were unconvinced of the potential for fetal harm arising from low levels of alcohol consumption. There is also evidence regarding the complexity of delivering alcohol advice in the UK antenatal care setting. Doi et al performed 15 interviews and a focus group with six midwives recruited from NHS Lothian in Scotland [185]. Unlike in England and Wales, in Scotland alcohol screening and brief advice (ASBI) have been incorporated into guidelines for routine practice [186]. Consequently, all the midwives participating in the Doi et al study had received formal ASBI training. Despite this, there was evidence to suggest that delivery of ASBI needed to be contextualised with a midwife's personal alcohol use, those midwives who were themselves abstinent were strongly in favour of abstinence in pregnancy. Further, whilst all midwives cited antenatal care as an appropriate place for ASBI work, they admitted that it was a low priority in the face of ever increasing workloads. They also raised concerns that this work could have a negative impact on the nature of the relationship with the pregnant woman, particularly at the first appointment when they did not feel that there would sufficient trust to allow a woman to divulge such potentially sensitive information.

In summary, it can be stated that the evidence provided within this thesis and the related literature indicates both the failure of medical professionals to actively and consistently offer advice and of pregnant women to acknowledge medical discourses within their narratives of alcohol use. This finding is of particular importance because it appears to directly contradict one of the main concepts of reproductive citizenship, namely the assumed dominance of expert biomedical forms of knowledge within pregnancy. Lupton argues that it has become the ethical duty of the good reproductive citizen to both actively seek out and willingly comply with expert advice throughout pregnancy. This view conforms to the wider literature concerning neo-liberal citizenship and health promotion / public health, in which reliance upon expert discourses is understood to be integral to the health conscious good citizen [187]. Petersen argues that it is the reliance upon discourses that differentiates neo-liberalism from the process of individualisation discussed by Beck and Giddens [188]. In the latter, it is assumed that individuals are 'autonomous, rational actors' capable of acting in a

manner that was free from socio-cultural influences. Within neo-liberalism this construction of the individual is critiqued and the concept of autonomy altered to encompass a '*regulated autonomy*' (page 48) that is shaped by the mandates of expert discourses [188].

However, the predominance of social norms evidenced within this research and the predominance of expert discourse central to the understanding of neo-liberal citizenship are not necessarily conflicting. It becomes possible to understand this when examining the literature concerning how expert discourses come to infiltrate the popular consciousness and become understood as common sense knowledge. These mechanisms of infiltration are termed as political technologies and can be divided into two inter-related forms, disciplinary technologies and technologies of the self [189]. Disciplinary technologies are primarily concerned with large scale mechanisms of surveillance and enticement to comply with expert discourses and thus governmental desire, for example public health education campaigns concerning drinking in pregnancy. Technologies of the self are more subtle and diffuse and act directly upon individuals' lives by influencing their thoughts and actions. It is plausible that the articulation of 'always knowing' by study participants is evidence of the effectiveness of these technologies of the self with regard to alcohol use in pregnancy. It is not simply that women are made aware of biomedical discourse through disciplinary technologies and thus change their behaviour as a direct consequence of expert knowledge. Rather, expert discourses dictating the requirement to reduce or abstain from alcohol are filtered through into people's thoughts and actions via subtle and not easily defined methods of communicating until individuals come to accept this knowledge as 'common sense'.

There is also empirical evidence substantiating the ability of neo-liberal discourses to infiltrate individual narratives in other areas of health consciousness. For example, Pond et al [190] conducted interviews with older (age 55 to 70) people living in New Zealand to examine how neo-liberal discourses of health promotion have affected conceptualisation of health and ageing. Additionally, Peacock et al [191] interviewed 13 women resident in Salford, a deprived area of Manchester in northern England. In both studies a strong sense of the neo-liberal ideal of individual responsibility for health was identified in participant narratives. However, in both studies it was found that this incorporation of neo-liberal discourses was not straightforward. For example, some participants interviewed by Pond et al [190] simultaneously exposed personal responsibility for health and also viewed health as

something beyond personal control and some showed an awareness of the powerful 'other' behind these ideologies. In the research by Peacock et al [191] women's accounts were often conflicting, they were less demanding of other women than of themselves and these tensions were particularly evident when they talked of their children or other people they cared for. This led the authors to conclude that whilst neo-liberal discourses are highly salient the internalisation of them should not be viewed as '*uncritical hegemony*' (page 178) [191].

This evidence regarding the complexity of the internalisation of neo-liberal discourses is reiterated in literature which argues the need to understand neo-liberal self-regulation as contextual and deeply embedded in socio-cultural expectations, with expert knowledge forming only one piece of the puzzle. Burchell argues that techniques of the self are not simply defined by technologies of domination and thus the two do not always act to reinforce one another [192]. Further, Lindsay [193] employed Australian alcohol and dietary public health guidance to demonstrate that individuals are still practicing self-regulation even when they are not complying with expert guidelines. Noting that both alcohol and food are important for the maintenance of social identities and using evidence drawn from young people's accounts of their drinking behaviour Lindsay argues that '*contemporary individualism requires simultaneous self-management of consumption, the maintenance of our social relationships and performance of social identities*' (p 482) [193]. The study by Root and Browner [86], included as part of the systematic review, provides additional evidence regarding the complexity of self-regulation. This research attempted to analyse how pregnant women assess what is the most appropriate behaviour by assessing the role of medically generated norms and subjugated norms, i.e. those derived from personal experience and / or knowledge of their own bodies. The most salient point was that it was very difficult to answer definitively what sources of information and what voices women listened to. At different times and with regard to different behaviours women drew upon different forms of knowledge, the authors conclude that this makes an '*unconfounded analysis*' (page 206) [86] of each form of knowledge impossible.

I would argue that it is problematic to assume that the concept of 'always knowing' in my interviews reflects solely an uncritical hegemony of expert knowledge via technologies of the self as is implied in the presumption of the dominance of the expert within Lupton's writings on reproductive citizenship [192]. This is not to say that expert biomedical knowledge does

not have a role in the conceptualisation of the importance of social norms within this research. It would seem illogical to contend that social norms concerning the restriction of alcohol intake in pregnancy could have arisen in isolation to medical knowledge that argues for the same thing [83]. However, I am arguing for an understanding of self-regulation that incorporates more than expert biomedical knowledge of alcohol use in pregnancy.

It is possible that the need to understand a more complex model of self-regulation in pregnancy is particularly evident when considering alcohol consumption because this is an area of acknowledged biomedical uncertainty regarding what is safe. Within my analysis there was evidence to suggest that biomedical uncertainty, made tangible by confusing and conflicting guidance, impacted upon women's narratives of drinking in pregnancy. In both the interview data and the systematic review, it was evident that women failed to find reassurance from the 'expert' medical guidance regarding what was safe. There is also evidence from recent Australian qualitative research that biomedical uncertainty has had an effect upon the perceived validity of guidelines regarding alcohol use in pregnancy [194]. Within this study, some participants (all women who were planning a pregnancy, currently pregnant or had young children) viewed abstinence only messages as inducing fear and as part of a tendency towards unwarranted regulation of women.

If it is possible that biomedical uncertainty plays a role in diminishing the importance of expert discourse within pregnant self-regulation of alcohol consumption, then it could also be hypothesised that expert discourses would be more central to women's accounts of their decisions regarding health behaviours that have a firmer basis in biomedical evidence. An example of such a behaviour is smoking in pregnancy, which is known to be associated with a range of deleterious effects for both the mother and child [195]. The UK Department of Health guidance regarding smoking in pregnancy is unequivocally strong in its recommendation of abstinence [20]. Within my analysis there is some evidence that participants constructed smoking and drinking during pregnancy differently, with smoking viewed as an addiction and alcohol as a choice. Further, a large scale systematic review of qualitative literature was published in 2013 that aimed to provide evidence regarding how women's circumstances and experiences shaped their smoking behaviours in pregnancy [196]. Twenty six studies within 29 papers were included in the review and meta – ethnography was used to synthesise the results. The results were organised into four lines of argument: being a smoker; being a pregnant smoker; quitting and trying to quit smoking;

and continuing to smoke. The authors noted that these lines of argument were inter-related mechanisms to explain the journey of women who began pregnancy as smokers. Similar to the study by Hammer and Inglin [160], women's experiences of being a pregnant smoker were marked by experiences of guilt caused by an acknowledgement that their smoking was potentially causing harm to their child and thus that they were doing something wrong. Further, reasons for stopping smoking in pregnancy were voiced around wanting to protect the fetus. However, there was also a strong need to contextualise a woman's smoking behaviour with the rest of her life circumstances. In particular the authors noted that the reasons given for continuing to smoke in pregnancy were the same as those for smoking at any other time in life. Smoking held a functional role and pregnancy did not negate this. Also, some women continuing to smoke appeared to reject the biomedical knowledge about smoking in pregnancy, preferring instead to personal experience of previous pregnancies or the pregnancies of others. Therefore, it appears that this systematic review evidences a picture of self-regulation regarding smoking in pregnancy that is arguably further enmeshed in biomedical knowledge than alcohol in pregnancy but is nevertheless highly contextual and complex. This again highlights the need to re-conceptualise self-regulation within the writings of reproductive citizenship.

7.2.2 *Pregnancy as part of the life-course*

The complexity of self-regulation was also highlighted by further aspects of my analysis of the interview data. In addition to the interplay between medical and social norms within pregnancy specifically, women's narratives also revealed the necessity of contextualising choices concerning alcohol use in pregnancy with the rest of a woman's life history and experiences. This was made specifically apparent in three ways: (1) the significance of alcohol in pre-pregnancy life; (2) the influence of the partner; and (3) the socioeconomic status of pregnant women. These issues are now discussed in turn.

7.2.2.1 *The significance of alcohol in pre-pregnancy life*

The accounts of the women I interviewed provided evidence that alcohol use in pregnancy should be understood with regard to the importance of alcohol in their lives pre-pregnancy. Critically, there was often a link between the relative importance of alcohol in general life and the ease with which women reduced or abstained during pregnancy. This positioning of pre-pregnancy alcohol use as bearing influence upon drinking during pregnancy

corroborates with the findings of a systematic review published by Skagerstrom et al in 2011 [197]. This reviewed, identified and examined quantitative studies conducted in antenatal care settings which assessed predictors of pregnant women's alcohol use, fourteen papers were included. Seven of the studies explored whether pre-pregnancy drinking was a predictor of drinking during pregnancy and in all seven studies significant associations were made. Indeed, pre-pregnancy drinking patterns and exposure to violence were the only consistent predictors of drinking during pregnancy identified across the diverse range of cultures and study designs examined [198]. However, it is unclear if these seven studies excluded women not drinking before pregnancy and thereby avoiding increasing the relationship between pre-pregnancy drinking and drinking during pregnancy. A recent Australian study sought to overcome this by only examining drinking patterns of those women who drank prior to pregnancy [199]. In total 1969 women were included in the analysis and pre-pregnancy drinking was again found to be significantly related to drinking in pregnancy. Those women drinking weekly prior to pregnancy were approximately 50 % more likely to drink in pregnancy than women drinking less than weekly (OR 1.47, $p=0.004$). Further, pre pregnancy binge drinking was strongly associated with drinking in pregnancy (OR 2.28, $p < 0.001$) in comparison to women who did not engage in binge drinking prenatally. This quantitative evidence is further bolstered by an ethnographic study by Killingsworth [200] which explored the symbolic meaning of alcohol in women's lives, before pregnancy, during pregnancy and during motherhood. Over several months the author observed a toddler playgroup held in a middle-class suburb of Melbourne, Australia. In addition to utilising alcohol to ensure an identity that was not solely concerned with motherhood, women also talked about lessening consumption outside pregnancy as part of the trajectory from rebellious youth to respectable middle age. A recent study published by Crawford- Williams et al [201] reported findings from five focus groups with a mix of currently pregnant and recently postpartum women (infants aged between four and 20 weeks) and their partners in order to ascertain their knowledge concerning prenatal alcohol use. This study was not considered for inclusion in the systematic review because it was published in April 2015 and the updated searches were completed in January 2015. One of the main themes identified by the authors was that of 'motivation'. Here participants agreed that whilst no pregnant woman would wish to cause harm to her baby, alcohol use may serve a functional role in her life and this could provide credible reason for continuing to drink in pregnancy.

The relationship between pre-pregnancy and pregnancy drinking would therefore seem to be reasonably established in both my own analysis and relevant quantitative and qualitative literature. It is therefore surprising that this was not more strongly evidenced within the literature included in the systematic review. It is possible that this is because the emphasis upon pregnancy within the included studies precluded prompting talk of pre-pregnancy drinking with participants. I acknowledge that these narratives within my interviews arose from a uniform initial questioning regarding previous drinking. It is possible that this narrative would not have emerged as strongly in my analysis without this questioning.

7.2.2.2 The influence of the partner in decisions regarding alcohol use in pregnancy

Within the evidence emerging from both the interview data and the systematic review it was not possible to precisely delineate the role a woman's partner may have on her alcohol consumption in pregnancy. This is in keeping with the contextual and dynamic nature of self-regulation, in which it could be argued that to try and identify the precise importance of specific other people in the decision making processes regarding alcohol in pregnancy would be erroneous. This conclusion contrasts strongly with the assumption within some of the wider literature concerning alcohol use in pregnancy that the partner has a particularly important influencing role on a pregnant woman's drinking. Indeed, the research by van der Wulp et al [163] and Crawford-Williams et al [201] specifically included partners in their focus groups because of the assumption that partners would be important and therefore the interaction between a woman and her partner would be illuminative. The authors of both of these studies cited an RCT performed by Chang et al in 2005 [202] in order to justify their belief in the importance of partners in alcohol use in pregnancy. This RCT aimed to test the effectiveness of a brief intervention to reduce alcohol consumption in pregnant women that was enhanced by including a partner of the pregnant women's choosing [202]. The authors validated this methodology by citing the research by Coleman et al in 1990 [203]. This study aimed to explore the relationship between alcohol consumption during pregnancy and social support systems. The main finding of the paper was that greater levels of social support were associated with reductions in alcohol use. However, statistical significance was marginal ($p=0.05$). Further, it is notable that when women were asked to identify individuals within their social support it was mothers and not male partners that were most frequently mentioned. It is therefore unclear why partners have been singled out as holding the

potential for particular influence on alcohol use in the subsequent research by Chang [202], and then by van der Wulp et al [163] and Crawford-Williams et al [201].

The assumption of the importance of the partner within the literature is perhaps best illustrated by the writings of May in 1995 [204]. He argued for a comprehensive schema for the prevention of FASD that involved interweaving primary, secondary and tertiary prevention programs which take into account the complex influences on a woman's drinking behaviour during pregnancy. One of these influences is listed as a heavy drinking partner encouraging a woman to drink. Indeed May's belief in the strength of influence of the partner on the pregnant woman was so strong that he recommended '*when couples are in solid relationships, a nondrinking contract signed by both partners is a useful and valid concept to pursue to uphold abstinence*' (page 1572). However, the critical failing of this recommendation was that May relied on literature based on problem drinking to identify the partner as an important influencing factor during the pregnancies of non-problem drinking women. This was because May acknowledged that, at the time, there was insufficient research regarding what influences non-problematic pregnant women's drinking behaviour.

It is my assertion that at least part of the assumption of the importance of the partner within the literature lies in an assumption that the relationship is strong and important in itself. Indeed, de Bonnaire and Falloon stated:

'others likely to have the greatest influence on women's drinking behaviour during pregnancy are those with whom women have the closest relationships and spend the most time with (and as such are in the position to apply persistent pressure). For these reasons partners and husbands are likely to have some influence over women's drinking behaviour' (page 36) [150]

This assumption not only fails to recognise the complexity of self-regulation evidenced within this thesis and but it also negates the fact that not all women are in relationships during pregnancy. Further, there can be no uniform understanding of the relationship between a pregnant woman and her partner. For some it may not be the most significant relationship in their life, nor is it always a positive one. For example, there is evidence concerning the experience of young mothers, aged less than 20, that suggests the pregnant woman's own mother is often the most significant and intimate relationship in terms of providing emotional and practical support [205].

7.2.2.3 Socioeconomic status of the pregnant woman

My analysis did not reveal any considerable differences in the narratives of women according to their socioeconomic status. The only difference became apparent in the theme 'keeping who you are', where for some higher SES women the empowerment to challenge medical authority was discussed. This finding is surprising given that it is argued within reproductive citizenship that pregnant women from lower socioeconomic groups are likely to find it more difficult to meet the demands of reproductive citizenship and also may feel less inclination to do so compared to higher SES women [55]. Within her own research, Lupton identified that women from higher socioeconomic backgrounds reported being more vigilant about adhering to guidelines regarding diet, exercise, alcohol and cigarette consumption than women from lower socioeconomic status groups [56]. She explains this by stating that socioeconomic disadvantages make adhering to guidelines more difficult. She also argues that the idea of the infant as 'malleable', one in which life chances can be altered by the quality of caregiving, are particularly middle class and appeal to '*bourgeois ideals of self-improvement, competitiveness and intellectual achievement*' (page 647) [56]. This critique complies with wider literature that argues that the neo-liberal emphasis of individual responsibility for health is inherently classist because it negates the structural factors that can predispose to ill health in the first place [78, 80]. In this manner, there is robust evidence supporting the consequences of neo-liberalism on health inequalities [191]. There is also some evidence in empirical literature to comply with the second part of Lupton's claims, that people from lower socioeconomic groups may be less concerned with achieving the identity of the ideal self-regulating citizen. For example, research undertaken with 30 employees of a Danish company identified a broad social patterning of drinking habits [206]. Lower socioeconomic groups were characterised by relatively infrequent but high intensity ('binge') episodes and higher groups by lower intensity but more frequent drinking. Further, higher socioeconomic groups used terms associated with neo-liberal ideals in their speech, i.e. responsibility, self-control etc. Thus, it was concluded that participants from higher socioeconomic groups were keen to show themselves as reflexive self-governing citizens in a way that was not apparent in lower socioeconomic groups.

There is also evidence indicating that consumption of alcohol in pregnancy is socially patterned, with pregnant women from higher socioeconomic groups being more likely to drink. The systematic review by Skagerstrom et al [197] included five studies assessing

socioeconomic status as a predictor of prenatal drinking, four of them found an association between higher socioeconomic status and continuing to drink. This pattern is also evidenced in the UK. The 2010 Infant Feeding Survey found that amongst respondents that drank before pregnancy, 59% of those who had never worked abstained during pregnancy and 31% of them reduced their consumption, compared to 43% and 54% in women from managerial / professional occupations respectively [36].

I do not interpret the lack of social class differences in my interview analysis to mean that socioeconomic status has no role in the experience of alcohol use in pregnancy. Rather, it is possible that this reflects both the limitations in the participant group sample and the complexity of integration of neo-liberal discourses. My sample was diverse in terms of socioeconomic status but was highly uniform in that all study participants comfortably claimed the position of 'good mother' in their narratives regardless of their drinking behaviour. Self-regulation of alcohol consumption meant different things for different women but all study participants appeared to be enmeshed within the network of discourses of good reproductive citizenship and narratives surrounding their drinking behaviours were constructed in similar ways around this. In this sense, my analysis counters the findings of Jarvinen [206] by suggesting that willingness to comply with the demands of neo-liberal citizenship was not dictated by socioeconomic status. Rather, my findings conform more to the previously discussed research by Peacock et al [191] which identified a strong sense of neo-liberal individual responsibility for health amongst women interviewed in Salford, England. Salford is an area characterised by high levels of socioeconomic deprivation and of the 13 women interviewed by Peacock only two did not identify themselves as working class.

7.2.3 The role of the discourse of good motherhood in accounts of alcohol consumption in pregnancy

All the women interviewed were unified in their need to feel themselves to be, and express themselves as, good mothers to their developing child. The strength of these narratives conforms to Lupton's explanation of reproductive citizenship, in which compliance with the discourse of good motherhood is understood to be very important to pregnant women. Whilst both my analysis and Lupton's writings on reproductive citizenship comply with regard to the strength of the discourse of good motherhood, there are some important differences between the two that warrant further discussion. These are: (1) the need to

recognise 'good motherhood' as a malleable concept; (2) the importance of presentation of self as a good mother; (3) the role of stigma as a consequence of good motherhood; and (4) the role of self-sacrifice within good motherhood. These are discussed below.

7.2.3.1 The need to recognise good motherhood as a malleable concept

My analysis revealed good motherhood to be a malleable discourse, one that is contextual and is shaped by experiences and life circumstances. In contrast, within the writings of reproductive citizenship there is an underlying assumption that the ideals of intensive mothering are felt as strongly by all women and in the same way. Indeed, Lupton critiques this by stating that not all women are able to achieve these standards of mothering and therefore the uniformity of the discourse acts to exclude certain groups of women, for example those of lower socioeconomic status [54, 56].

There is literature concerning the experiences of mothers working outside of the home that supports the proposal that good motherhood should be considered a malleable discourse. Johnston and Swanson interviewed 95 mothers in the US with a variety of employment status (full time employment, part time employment and mothers staying at home) [79]. The construction of the good mother identity differed by working status, indicating that women were moulding the discourse to fit their circumstances and experiences. For example, to mothers staying at home their accessibility to their children was of central importance to the mothering identity and mothers who were not always available to their children were judged as bad. In contrast, mothers employed on a part-time basis determined the importance of availability to be in the quality of interactions, specifically with regard to emotional openness, with their children. Further research by Christopher [207] sought to extend this work by analysing the meaning of good motherhood and working identities amongst a more diverse participant group within the US and Canada. Despite the heterogeneous sample, participant narratives were characterised by what the author termed 'extensive mothering', defined as mothering in which childcare was largely delegated but in which the mother ultimately held responsibility for the child /children and thus claimed the role of primary care-giver. Critically, the ability to delegate childcare involved a rejection of one of the main tenets of intensive mothering, that a child is best raised with the constant attention of its mother. Thus, this study further indicates that the social meaning of good motherhood is multi-faceted. It is therefore plausible that the women in my study that continued to drink

during pregnancy were able to comfortably claim a position as a good reproductive citizen (and thereby good mother).

Despite the complexity of the meaning of good mothering indicated both in my analysis and the wider literature, it is important to note that within the studies included as part of my systematic review, good motherhood did not appear to have such nuanced implications. Whilst good motherhood was a prevalent concept, identified in seven of the included studies, its meaning was limited to the requirement for mothers to sacrifice for the sake of their baby. It is possible that this is a consequence of the failure of the included studies to reflect on the importance of alcohol use within the rest of a pregnant woman's life course and thus to take account of the benefits of drinking in pregnancy.

7.2.3.2 The role of maternal self-sacrifice within the discourse of good motherhood

Within reproductive citizenship it is understood that maternal self-sacrifice is critical to the identity of a good mother. Under this rubric, pregnancy is viewed as a time of containment, when it is understood that a woman is carrying a fetus / child who is more important than herself. Thus, a 'good reproductive citizen' is also required to willingly abstain from any activities, i.e. alcohol consumption, that carry a potential risk to her fetus. However, the evidence from my interviews contradicts the discourse of containment, which necessitates a view of maternal and fetal bodies as essentially separate. Rather, participant narratives support a conceptualisation of pregnancy as an interembodied state. Lupton states that interembodiment '*encapsulates the notion that apparently individuated and autonomous bodies are actually experienced at the phenomenological level as intertwined*' (page 39) [208]. Notably, part of what motivated the need to maintain a sense of self during pregnancy by women who continued to drink was an understanding that in order for a pregnancy to be healthy, the physical and emotional needs of both the mother and child needed to be met. Pregnancy was a time when both mother and child were important, mother and fetus were so inter-related that the wellbeing of one was not possible without the wellbeing of the other. Nash [209] provides some corroborating evidence that this sense of interembodiment is important to the conceptualisation of pregnancy. Within her research, she identified that some pregnant women were clear that they felt their fetuses to be individuals and separate to themselves, yet for others there was no distinction. Additionally, for some the sense of maternal 'self' and fetal 'other' was interchangeable and subject to flux [209].

I have already argued that good motherhood should be viewed as a malleable concept. It is possible that an understanding of pregnancy as an interembodied state also has implications for the current understanding of reproductive citizenship, in particular highlighting the role of maternal self-sacrifice in pregnancy. I am not stating that self-sacrifice is not important; no woman in my study argued that they should be able to continue drinking exactly as they were prior to pregnancy. However, this analysis calls for a more nuanced understanding of maternal self-sacrifice within pregnancy than is currently understood within reproductive citizenship. For those women for whom pregnancy is articulated as an interembodied state complete self-sacrifice to the needs of the fetus would not injure a healthy pregnancy. Rather a healthy pregnancy is obtainable by recognising the needs of both mother and child and achieving a sense of compromise between the two. Pregnancy was not a state of containment, it was a state of equilibrium.

7.2.3.3 The importance of presentation of self as a good mother

Another important aspect to the way that the discourse of good motherhood was made apparent in the narratives of interviewed women was the apparent need to not only feel themselves to be good mothers but also to be publicly seen by others to be a good mother. Critically, this need to appear as a good mother often influenced alcohol consumption, e.g. acting as a further reason to abstain or preventing women from drinking in public when pregnancy became visible. The importance to participants of presenting themselves as good mothers means that, arguably, Goffman and his work 'The presentation of self in everyday life' [210] could provide a useful added theoretical insight to both my analysis and the literature concerning reproductive citizenship in general. In summary, this work provides a sociological analysis of every day social interactions using dramaturgical similes in which these interactions were viewed as analogous to performances. The individual 'acting' within the specified social interaction is understood to want to convey information about themselves, both consciously and unconsciously, in order to present themselves in a desired manner. The audience, i.e. other individuals participating in the social situation, attempt to understand information about the individual through the information conveyed. Goffman also argues that one key part of the performance is 'dramatic realization', these are the acts by which a performer expresses his role. He illustrates the meaning of 'dramatic realisation' using the example of a baseball umpire who must forgo certainty about what he saw in the

game to give a decision quickly. The speed of his decision makes it apparent that he was sure of his judgement and he can therefore be considered to be in proper control of the game.

With regard to pregnancy and reproductive citizenship, it is my contention that as soon as pregnancy becomes visible it can be viewed as a social interaction, a performance, in the manner that Goffman suggests. A pregnant woman will want to perform the role of the good reproductive citizen and her audience will want to assess her on this manner of behaviour. For example, Nash [211] notes the performative role of exercise within the pregnancies of middle class Australian women, arguing that exercising is a means that women can show themselves to be controlled and to care both about themselves their unborn baby. Further, Copelton [212] also argues that consumption of a nutritionally balanced diet during pregnancy is also a manner in which presentation of self as a good mother becomes possible. In the same way that Nash discusses the role of exercise in pregnancy and Copelton food, it is my assertion that the use (or not) of alcohol during pregnancy can be viewed as a method of performing the role of good reproductive citizen. In other words, if pregnancy is viewed as a performance then alcohol can also be viewed as a dramatic realisation of this performance.

7.2.3.4 The role of stigma as a consequence of good motherhood

Stigma was an important finding in both the interview data and the systematic review. Critically, accounts of stigma were inextricably linked to the discourse of good motherhood, alcohol use was a potentially stigmatising activity because it held implications for the perception of oneself as a good mother. Therefore, Goffman provides further theoretical insight that can help illuminate the understanding of alcohol use in pregnancy as a stigmatised activity. In his book 'Stigma. Notes on the management of spoiled identity' [213], Goffman contends that stigma arises when societies' 'normative expectations' regarding an individual's 'social identity' are not met. 'Social identity' is understood to be the ordering of individuals based upon the '*complement of attributes felt to be ordinary and natural for members of each of these categories*' (page 11) [213]. When a person does not meet the normative expectations of their social identity, if they do not act as we think they should, then stigma can result. Therefore, stigma arises when women do not perform according to the normative expectations dictating how a 'good' pregnant woman should act in regard to alcohol use. Goffman goes on to state that stigmatised individuals are denied the 'respect and regard' (page 19) that would have been afforded to him if he had been able to comply

with all aspects of his social identity [213]. The importance of the presentation of self as a good mother and the heavy implications in failing to fulfil the normative expectations of this role are summarised by May [81], who writes that

'Motherhood is accorded great significance in Western countries: being a 'good' mother is particularly important for a successful moral presentation of self and it is indeed questionable whether a 'bad' mother (or a mother who could not show herself to be 'good' could claim a moral self' (page 471) [81].

As a consequence of his focus on face to face interactions, Goffman's theorising of stigma has been critiqued for failing to link stigma to wider political and social structures [214]. Scambler states that *'the cultural norms of shame and blame and the labelling process with which they are bound never exist in a structural vacuum but invariably arise within a structural nexus.'* (page 451) [215]. This understanding of stigma as arising from cultural norms has important consequences. I have previously argued that the requirements of self-regulation in pregnancy and the meaning of the discourse of good motherhood are malleable and contextual. Thus the 'structural nexus' of reproductive citizenship is not fixed and the resulting demands of the presentation of the self and consequent potential for stigma are also malleable and contextual. As Longhurst argues, *'pregnant bodies and the regulatory regimes that prohibit and enable them to perform in specific ways are temporally and spatially located'* (page 456) [216]. This 'fluidity' helps to explain some of the complexities of stigma present within the accounts of the women I interviewed. For example, for women who continued to drink in pregnancy, fear of social judgement was enough to ensure behaviour modification but it was not enough to change behaviour completely, i.e. to enforce abstinence. Therefore, it appeared that there could be a level of discordance between wider cultural norms and more personal norms regarding alcohol use and their relative positioning within the expectations of reproductive citizenship. Women were aware that in some situations, i.e. in private and with their immediate social network, their alcohol use was part of the normative expectations of reproductive citizenship. Thus, they were able to openly drink, still maintain the identity of a good mother and not leave themselves open to stigma. Conversely, in other situations they felt that drinking was not part of the normative expectations of reproductive citizenship and altered their presentation of self accordingly to avoid the ramifications of stigma.

The importance of context in presentation of self and stigma has been further demonstrated by Neiterman [217], who found that both presentation of self and meanings ascribed to pregnancy changed dependent upon the social context within which the pregnant woman was interacting. This research consisted of interviews with 42 Canadian pregnant or recently postpartum women from a diverse background in terms of age, self-identified social class and parity. Across interviews she consistently identified social context as the major theme in understanding pregnant embodiment. This was highlighted by the contrast in the accounts of the women experiencing pregnancy in their teenage years and those experiencing pregnancy in their 20s and 30s. Whilst it was acknowledged that teen pregnancy was stigmatised, the accounts of the women experiencing teen pregnancy showed that stigma was not universal. They reported experiencing negative reactions from strangers, but that their pregnancies were valued within their immediate social networks of family, partner and friends. Neiterman argues that this is evidence that *'in this community, the pregnant teen body was not seen as deviant: it was perceived as a norm'* (page 342) [217]. It is possible that this conclusion is not justified. For example Neiterman does not present any data from people within the immediate social networks to establish how they viewed the pregnancy. However, it does provide evidence supporting the fact that experiences of stigma are not universal and depend upon the social environment that the pregnant woman is interacting in at that moment. She also presents corroborating evidence from women experiencing pregnancy in their 20s and 30s that presentation of self is variable. These women were experiencing pregnancy at a time that was deemed socially appropriate and were all married and financially secure. In these respects, these pregnancies were not liable to induce social censure and stigma. Despite this, Neiterman notes these pregnancies when taken into the context of the workplace caused *'social disruption'* (page 343) [217]. Whilst their pregnancies were welcomed in social circles, women's narratives revealed the fear that their pregnancies would mark them as unprofessional and undedicated in their professional arenas. They carefully altered their presentation of self to counteract this fear, for example dressing in a way that emphasised their professional roles and discussing the possibility of undertaking work while on maternity leave.

7.2.4 The conceptualisation of risk

7.2.4.1 How alcohol related risk was perceived

The lack of knowledge surrounding the potential dangers of alcohol use in pregnancy was particularly striking within my participant group. This is not to say that alcohol was not acknowledged as a risk in pregnancy. Rather, it was that knowledge of the teratogenic effects of alcohol was not necessary to the conceptualisation of alcohol related risk. This lack of knowledge regarding FAS / FASD was also a central finding to the systematic review, being strongly evident across all the included studies. It is also reflected in the quantitative survey research surrounding risk perception of alcohol use in pregnancy. For example, Peardon et al [218] found that 61.5% of survey participants were able to say that they had heard of any effects of alcohol on the developing fetus. However, only 31.7% of these were then able to name FAS and were subsequently able to explain what the effects of FAS were. In 2000, a Canadian national survey of women aged 18 to 40 (n=902) and their partners (n=303) found a high proportion of respondents (71%) stated that they were aware of the term FAS. However, a much lower percentage was actually able to state what FAS meant, with only 34% being able to state that it refers generally to effects of alcohol on the a fetus. These findings were further substantiated by recent research performed in the UK [219], which consisted of both questionnaires and focus groups performed to ascertain what the general public knew about FAS/ FASD. There was a generally high awareness of the term FAS, with 86.7% of questionnaire respondents stating that they were familiar with the term. However, it is likely that this high percentage is partly attributable to the fact that some survey participants were recruited from conferences in which the lead author (an acknowledged UK expert on FAS) was an invited speaker. For example, 27.7% of survey respondents reported first being made aware of FAS in work. Despite this generally high awareness of the term, far fewer respondents were able to give a more in-depth awareness of FAS / FASD. When asked how common FAS was in comparison to the rest of the FASD spectrum, only 19.9 % were able to respond correctly. This lack of awareness was substantiated by focus group participants, who linked lack of knowledge to feeling that FAS / FASD was not relevant to them [219].

Thus, there may be a paradox in which women appear to be making decisions about alcohol in pregnancy whilst being largely unaware of why they need to make that decision. Instead, this body of evidence points to a far more complex assessment and incorporation of 'risk'

within narratives of alcohol use in pregnancy. For example, within this research, study participants that continued to drink in pregnancy were not aware of FAS / FASD but they did articulate an understanding of differing levels of risk posed by different levels of alcohol consumption. Some argued that their drinking (characterised by perceived patterns of low and infrequent consumption) did not pose a risk to the developing fetus. The concept of dose specific alcohol related risk was also identified in the systematic review, with a key finding within the 'perceptions of risk' concept being that participants often reported alcohol consumption as something that could be reduced to acceptable levels and thus not necessarily force abstinence. Awareness of a dose-response relationship is substantiated in the quantitative literature. For example, in Kesmodel and Kesmodel [220] 76% of the 438 women interviewed suggested that abstinence from alcohol was not necessary and 46% stated that one to six drinks per week was acceptable. This in contrast to the survey by Peadon et al [218], in which 80.2% of the 1103 respondents said that pregnant women should not drink any alcohol at all. These differences may be due to the fact that the former study interviewed women currently experiencing a pregnancy, whereas Peadon et al excluded pregnant women from their population level survey.

The complexities of alcohol related risk perception in pregnancy were further highlighted in my analysis when differing factors influencing reactions to alcohol risk during pregnancy were identified. Importantly, how these influences were incorporated into narratives and how they appeared to affect risk perception was highly individual. For example, previous pregnancy experience acted as a reassurance for some women that their alcohol consumption pattern had produced a healthy child in the past and, therefore, could be judged to be safe. In contrast, for others difficulty conceiving or pregnancy loss heightened anxiety about their current pregnancy and made them more unwilling to engage in any potential risky behaviour.

This complexity of the incorporation of risk into participants' narratives closely correlated with findings in the systematic review, where risk perception was influenced by personal experiences of previous and other women's pregnancies. Reassuring examples of pregnancies in which alcohol had been consumed and resulted in no apparent deleterious birth outcomes were used to mitigate the potential risks posed by alcohol. This incorporation of knowledge gained through personal experience into risk perception was also evidenced in the previously cited systematic review of qualitative literature concerning

smoking in pregnancy [221]. Here it was reported that personal experiences of women who had smoked during pregnancy with no apparent negative outcomes were used as justification for continuing to smoke [221].

The quantitative literature also provides some evidence for the influence of previous and / or other women's pregnancies on drinking in pregnancy. Indeed, this concept was explored by Raymond et al [161] as a deductive theme, the authors were motivated to ask about this by the findings of research performed by Testa and Reifman [222]. This study aimed to predict via modelling whether or not perceived riskiness of alcohol consumption during pregnancy was causally related to self-reported alcohol consumption during an index pregnancy. They recruited 159 pregnant women, both abstaining and currently drinking, and questioned them regarding alcohol use during pregnancy, previous pregnancy outcomes, lifetime alcohol problems, socioeconomic status and perceived riskiness of drinking during pregnancy. The final model identified that a previous healthy pregnancy outcome was related to lower perceived risk of alcohol use in pregnancy, which in turn was associated with higher probability of drinking during pregnancy. Further, in 2011 Peardon et al [223] used the data arising from the survey described previously to identify predictors of prenatal drinking. Intention to consume alcohol in a future pregnancy was heavily associated with alcohol use in previous pregnancy.

It is, therefore, evident that my analysis of interview data, systematic review and related literature all coincide in pointing to a picture of risk perception as complicated, not generated by precise knowledge of the risk itself and incorporated within narratives in highly individual ways. This complexity of risk perception complies with the sociocultural approach to risk theorisation within sociology [160, 224]. Within this approach it is acknowledged that risk is not understood in a purely objective manner, rather it is filtered through the sociocultural environment in which people exist and interact [160].

7.2.4.2 The role of risk perception within reproductive citizenship

The conceptualisation of risk within governmentality theory is acknowledged to be strongly rooted in social constructionism [224]. Thus, the knowledge and understanding of risk are inextricably linked to and constructed within the sociocultural context in which it arises. Consequently, risk conceptualisation cannot be separated from the wider culture in which it operates. In terms of neo-liberal citizenship, this means that risk communication is

understood to operate as one form of the 'technologies of the self' [225]. It is the threat of adverse outcomes, the risk to health, that justify public health mandates [187].

Consequently, it is argued that risk avoidance has become a fundamental manner in which the self-regulation of the neo-liberal citizen is enacted [187, 225].

Within the interviews performed as part of this research, risk discourse acted as technology of the self by serving to illuminate and execute the wider discourses of reproductive citizenship. This understanding of the role of risk narratives emerged from my analysis when considering the close analytical links between narratives of risk and good motherhood in the accounts of study participants. For example, within the accounts of women who continued to drink in pregnancy, there were strong parallels between their responses to risk and the ways in which they discussed achieving the role of good mother. Drinking during pregnancy was discussed as a firmly bounded behaviour in terms of acceptability of amounts and types of alcohol consumed, location of drinking and reasons for drinking. These 'rules' were constructed as ways in which the potential risks of drinking in pregnancy could be minimised but, critically, they paralleled participants' individual understanding of the wider social norms of drinking during pregnancy. For those women who abstained during pregnancy, there appears a link between their perception that maternal self-sacrifice is central to the role of good motherhood and their subsequent need to avoid alcohol related risk.

7.2.5 Challenges to the medicalisation of pregnancy and the concept of 'agency'

The need to understand pregnant self-regulation as a complex, dynamic process that involves more than biomedical knowledge is analogous to a body of literature that calls into question how the process of medicalisation has been conceptualised. Ballard and Elston [226] contend that the traditional interpretation of the process of medicalisation, in which medicine was seen to re-formulate previously 'normal' life events and thereby ensure the increasing dominance of its own professional expertise in society, is too simplistic. They also argue that the assumed passivity of the lay population within medicalisation should be re-evaluated. Rather, when medicalisation is viewed within a societal context in which illness is often viewed as an undesirable state that should be prevented or cured it becomes difficult to argue that the lay population have been totally submissive in the process. Broadly speaking, it is in the interest of a society that does not wish to be ill to invest in a medical system that holds knowledge claims regarding health and disease. Correspondingly, there is

a need to understand the medicalisation of pregnancy as a more multi-dimensional phenomenon than was originally written about by feminist scholars such as Oakley [227]. In particular, it is important to assess how medicalisation is perceived to have affected the experiences of pregnant women themselves. There is empirical evidence suggesting that women are not entirely submissive in the medicalisation of their reproductive health, nor can they be viewed as a homogenous group that have been affected in the same way by the same events [228, 229]. For example, Lazarus examined issues of choice and control for women during childbirth in the United States [230]. She divided her study participants into three groups, lay middle class women, health professionals (also middle class) and poor women receiving prenatal care at a public clinic. She found that all groups of women were unified by a view that childbirth was a natural process but that medical intervention may be necessary for the safe delivery of a child. Working within this framework, the middle class women were active in making choices regarding the care they received, for example in choosing obstetricians that held similar views as them and that they could trust to navigate them through prenatal care. Conversely, poorer women did not have the same options regarding choice and voiced concerns regarding continuity of care. She concluded by saying that middle class women have been schooled into viewing themselves as active and assertive consumers in the management of their pregnancy.

A further dimension to the critique of the medicalisation of pregnancy has emerged from the ethos of healthcare professionals themselves. It is erroneous to view health care professionals as unified in their views of the management of pregnancy and the role of their expertise within this. For example, in a broad generalisation, there is a differentiation between obstetric practice, rooted in biomedical ideology, and midwifery practice, rooted in women centred ideology and characterised by a belief that pregnancy and birth are essential normal events [231].

The complexities of women's interactions with the medical profession outlined above calls into question the appropriateness of the use of the concept of agency within the literature included in my systematic review, and as a consequent emergent concept in the narrative summary of the data. Agency was used as an analytical construct in the systematic review to refer to instances in the included studies when participants referred to their right to decide for herself and her baby what is appropriate behaviour. Whilst many of the included studies contributed to the development of this concept, two in particular were relied upon to

develop depth to the analysis. These are the studies by Burton-Jeangros [159] and Root and Browner [86]. Burton-Jeangros aimed to *'provide an empirical analysis of the agency developed by pregnant women as well as of the role that social influences play in their decisions'* (page 422) [159]. The authors hypothesised that risk management would be incumbent upon all pregnant women and that this risk management would be characterised by agency and social regulation of agency. Critically, they make the assumption that agency is associated with actions that are different from the 'normative framework', which is formed from biomedical norms. One of the main findings of the research is *'Interpretations of medical norms regarding every day health risks during pregnancy'* (page 423). Here study participants were divided into 'cautious' women, who applied medical norms, and those displaying resistance to medical norms. Despite the explicit use of agency as a theoretical construct, the analysis of women's accounts revealed a more complicated positioning towards medical norms, with cautious women not showing a passive acceptance of biomedical norms and the narratives of resistant women displaying a wish to contextualise medical norms within their lives rather than simply object to medical dictates. The study by Root and Browner [86] understood resistance and compliance as falling on the opposite ends of a spectrum, between which they claimed they were able to schematise the complexities of the relationship between the two, in particular those narratives which appear to be simultaneously both compliant and resistant. They describe knowledge as either authoritative (derived from biomedical norms) or subjugated (derived from other sources). In the same way as Burton-Jeangros [159] they found the integration of medical norms to be very complex. Referring to the *'moral logic'* of beliefs and practices they found that women were reliant upon their own systems of ethics to decide which form of knowledge was relied upon in any given situation. They refer particularly to one participants' account of nutrition in her pregnancy, in which she understands her body as knowing what to do (i.e. increase intake of food) and at the same time incorporates biomedical knowledge of what constitutes 'good food'. From this they infer *'the inherent difficulty in separating collusion from resistance and domination from participation'* (page 204) [86].

Paradoxically given their aims, it is my contention that what is emerging from both these studies is an affirmation of the wider literature concerning the need to understand the medicalisation of pregnancy as a complex process, in which pregnant women are not simply passive bystanders. Neither of these studies was able to produce a clear picture of resistance

or compliance to medical norms. Moreover, such a binary characterisation of actions is not adequate to capture the multifaceted nature of decision making in pregnancy. In particular, the assumption of Burton-Jeangros that agency is synonymous with resistance is particularly problematic [159] because it implies that women choosing to abstain from alcohol in pregnancy are not making active ‘agentic’ decisions. This was not what emerged from the analysis of my interview data. As I have previously argued, my data shows that self-regulation was complex and contextualised for both women who drink and women who abstain. Crucially, neither group of women dominated medical norms over the other, for both groups social norms and compliance with group norms were more evident and important in their accounts. Therefore, neither women who drank nor women who were abstinent could be said to be displaying agency or passivity in the straightforward binary manner described within the systematic review.

7.3 Strengths of this research

7.3.1 Interview analysis

Situating this research within the framework of reproductive citizenship specifically, and neo-liberal citizenship more generally, has facilitated the development of a unique insight into the issue of alcohol use in pregnancy. Critiques of neo-liberalism are instrumental to a wider critique of public health [47]. In particular, they have been instrumental in showing how the practices of health promotion emerge from wider societal systems of governing ‘productive’ populations [187]. By turning the neo-liberal critique upon pregnancy specifically, Lupton has established a theoretical framework linking the state of pregnancy to the wider neo-liberal political and cultural systems. However, it appears that this framework has largely emerged from analysis and amalgamation of wider sociological narratives. There is an absence of empirical data to elucidate the experience of pregnancy. Lupton herself acknowledges this gap when she writes that:

‘... these emotional and embodied aspects of neoliberalism and late modernity, of the reflexive self or the entrepreneurial citizen require more research and theorising. Foucauldian-inspired scholars on the body and biopolitics do not always demonstrate insight into the affective dimensions of being constructed as the subject of governmentality.’ (page 9) [232]

To the best of my knowledge, this research is the first to explicitly situate empirical research within the framework of reproductive citizenship. I have argued that reproductive citizenship

was chosen as the theoretical insight of this thesis because it offered the best 'fit' to the data emerging from the interviews. Additionally, the application of empirical data to this framework has engendered a critique of the theory, indicating how it can be further developed. For example, by providing evidence to suggest that self-regulation involves more than a willing compliance to the mandates of expert knowledge, this research shows a potentially important avenue in which reproductive citizenship can be further expounded to more accurately reflect the experience of pregnancy in neoliberal societies.

7.3.2 *The rigour of the systematic review*

The rigour of the systematic review methodology employed was demonstrated by the wide variety of databases and grey literature sources included and the use of two reviewers to independently assess study eligibility and quality. Consequently, it is possible to be reasonably confident that the correct studies were extracted from the sources most likely to yield relevant research up to the point at which searches were ceased (January 2015). Crucially, this enabled an unbiased and critical assessment of the findings of the whole body of identified literature.

7.4 Limitations of this research

7.4.1 *Interview sampling*

This research is based upon a sample of 20 pregnant women that were recruited purposively according to socioeconomic status, parity and drinking status (abstinent/ continuing to drink) during pregnancy. As explained in chapter 3, the participant's home address was originally used to identify their socioeconomic position by comparing their postcode to the Index of Multiple Deprivation. Originally, it was felt that using an area assessment would enable a more accurate measurement of socioeconomic positioning than is engendered by individual level characteristics, e.g. education level, because it encompasses the wider influences of social environment upon health related behaviours [233]. However, this approach was abandoned after the interview with participant 4, because she was highly educated professional that lived in an area classed as 'deprived'. It became apparent that area level characteristics may encompass a level of social interaction but may not capture meaningful individual levels of socioeconomic positioning [234]. Indeed, there is a growing awareness that a straightforward classification of socioeconomic position is not possible. Socioeconomic position is multi-dimensional, a construct emerging from both economic and

social positions [235]. Krieger et al [234]state that '*class, as such, is not an a priori property of individual human beings, but is a social relationship created by societies*' (page 346). Socioeconomic status is not something that can be straightforwardly measured. An approach to capture this subjective multi-dimensional way in which socioeconomic position is created by, and affected participants' interactions with society has been to ask participants to identify which class they feel that they belong to. However, I did not feel comfortable with this approach because I felt that the introduction of the issue of class within the context of the interview would have created the potential for the participant to feel that they were being morally judged and would have negatively impacted upon my ability to develop a reciprocal relationship with the study participant [236]. Therefore, I relied upon my own judgement to determine participants' socioeconomic position. This judgement was based upon a number of factors, also discussed in chapter 3. I felt that this assessment captured more accurately the socioeconomic environment in which participants lived and in which their pregnancies were enacted. However, it is fully acknowledged that this level of researcher judgment is potentially problematic and may not reflect how the participants themselves felt about their socioeconomic position.

Within the sampling matrix shown in Table 4 - 1 in Chapter 4, it is clear that no women with lower socioeconomic positioning experiencing their first pregnancy could be interviewed. Therefore, this set of perspectives is not represented within this study.

Despite the purposive sampling undertaken there is an underlying uniformity within the participant group that has important ramifications for the interpretation of my findings. Critically, as already mentioned in this discussion, all the women I interviewed presented themselves as comfortable with the identity of 'good mother'. It is an interesting and important finding that women continuing to drink in pregnancy can readily claim this identity. However, it is likely that my interpretation of the impact of the ideologies of neo-liberal citizenship upon the experiences of pregnancy would have been enriched if I had interviewed women who were less comfortable within the framework of good motherhood and thus were less enmeshed within the discourses of reproductive citizenship. For example, all study participants had made conscious decisions regarding their drinking in pregnancy and all those continuing to drink perceived their consumption to be low in comparison to others and their own previous consumption patterns. Interviewing pregnant women who had not made such conscious decisions regarding their consumption and / or were not as

comfortable with their drinking would have added a further dimension to my analysis. However, this was beyond the scope of this PhD.

It is possible that the lack of representation of the narratives of women who found it more difficult to identify as a good mother within my research was a consequence of the reliance upon community midwives to make the initial approach about study participation. Whilst this approach ensured that I was able to access potential participants quickly, it is likely that only women who were comfortable with both their midwife and their drinking would agree to show interest in this research. As the interviews progressed, I became aware of this limitation in my sampling and subsequent gap in my findings. In an effort to overcome this, I contacted the drug and alcohol midwife working in the antenatal department at the local hospital. I had worked closely with this specialist midwife in previous research and therefore knew that occasionally women were referred to her from community midwifery when they were not dependent upon alcohol but had disclosed a level of consumption that was higher than was deemed appropriate for community care. I hoped that these women would represent those discussed above, those who felt that their drinking was putting them at odds with the demands of reproductive citizenship. I attended two clinics run by the drug and alcohol midwife in an effort to recruit such women into the study. However, on these occasions none attended and time limitations prevented me from further attendance. Upon reflection, a snowball sampling technique may have been more amenable to accessing women who were willing to talk but did not wish to be recruited through more conventional means.

In asking midwives to act as gatekeepers and make the initial approach for recruitment, I did not have full control on who was approached. Midwives understood my need to recruit purposively and through regular contact with them I was able to ensure that the shifting sampling requirements were understood. However, there were also occasions when midwives would approach a pregnant women because she felt they would be 'good' for me to interview because they felt that these women would have unique perspectives and therefore should be interviewed.

Finally, all women interviewed were partnered in heterosexual relationships and thus the study does not capture the views of women experiencing pregnancies in homosexual relationships or without a partner. Further, the participant group was also ethnically

homogenous. With the exception of one participant, all women interviewed were identified as White British by the researcher. This reflects the demographics of the North East of England, in which 93.6 % of the population identified themselves as White British and has the lowest proportion of foreign born residents in the country [237]. However, this impacts upon the ability to transfer findings to more ethnically diverse areas of the UK because there is evidence from quantitative survey data that ethnic culture affects prevalence of alcohol consumption during pregnancy. A large scale study (n=9184) performed in the UK between 2000 and 2005 interviewed respondents at home to identify rates of smoking and alcohol consumption during pregnancy and breast feeding rates post-partum amongst British / Irish white mothers and mothers from ethnic minority groups [238]. After adjusting for socioeconomic status, they found that mothers from ethnic minority groups were less likely to consume alcohol during pregnancy. They also found that women of first or second generation immigrant status were more likely to consume alcohol during pregnancy; however after adjusting for socioeconomic status these results did not reach statistical significance. Further, the study compared British or Irish White mothers with all other ethnic minority groups. The authors justified this by saying that their aim was to explore acculturation as an overall phenomenon and therefore county or origin did not need to be examined. Acculturation is defined as the adoption of health behaviours from the new culture and the loss of behaviours from the original culture [238]. However, the different ethnic groups within the UK have such wide cultural differences that, arguably, such a broad approach to the analysis renders it almost meaningless. Despite this limitation, similar findings were identified in an additional large scale survey performed in the USA (n=101,821) between 2001 and 2005 [239]. The authors compared drinking reduction during pregnancy among women of varying ethnic backgrounds based on pre-pregnancy drinking levels. Amongst women who drank at the highest levels before pregnancy (defined as drinking seven or more drinks a week or had at least one binge occasion in the three months before pregnancy) Black, Asian/Pacific Islander and Hispanic women were all significantly less likely than White women to reduce consumption. Further, one of the systematic review 'near miss' studies, those that were excluded after full paper review, exclusively explored this issue [153]. The authors employed a mixed methodology to explore the construct of traditionalism, defined as adherence to long-standing beliefs and customs, among pregnant women from rural Mexican – American communities. It was hypothesised that the women who expressed the strongest traditional beliefs would be the most likely to abstain from

alcohol in pregnancy. This study was performed in an attempt to explain the 'Hispanic paradox', in which recent Mexican immigrants to the USA appear to have better perinatal health outcomes than the more acculturated Mexican American community [153]. Indeed, the authors did find some evidence that ideas associated with traditionalism were associated with abstinence from alcohol during pregnancy.

7.4.2 *Time frame of interviews*

The interviews were performed in the summer of 2009 and the spring of 2010. The considerable gap between data collection and completion of this thesis has been necessitated by two periods of maternity leave and part-time work undertaken by the researcher. It is possible, therefore, that these interview data do not represent an up-to-date assessment of the understanding of alcohol use in pregnancy as it relates to considerations of reproductive citizenship. As explained in the Introduction, the UK guidance regarding alcohol use in pregnancy was altered to focus more on abstinence in 2007. Also, the number of studies included in the systematic review provides some evidence there has been more focus upon this issue within the medical / research community than there has been in the past. It is therefore possible that study participants considered these guidance changes to be relatively 'new'. Thus, if I were to interview women in 2015 regarding the same issue it is possible that narratives would indicate abstinence as more of an established norm. However, this potential should be acknowledged but not overstated because I have argued for an understanding of neo-liberal self-regulation that is complex and encompasses more than expert discourse.

7.4.3 *Limitations inherent to systematic review methodology*

The primary limitations of the systematic review are those that are inherent to the methodology. In order to make the extensive literature searches feasible, it was necessary to tightly define the parameters of the searches with a highly structured research question and inclusion / exclusion criteria. It is possible that studies that could have added value to the findings were excluded, for example studies that included women with children who were older than one year. Whilst some of these studies have been used to elaborate or contrast findings within the discussion, it is still important to be cognisant of the fact that the findings of this systematic review reflect only the published findings of the included studies. Thus, the concepts and sub-concepts discussed offer only a partial illumination of the research

question. They are best viewed as explanations which are entirely dependent upon the inclusion/exclusion criteria of the systematic review, the nature of the women participating in the included studies and the remit of the authors in determining what they found to be relevant in performing the original analysis on the primary findings. It is possibly for this reason that some areas that appear to be important within the relevant quantitative and / or 'near miss' qualitative literature are not discussed in depth within the literature included within the systematic review. An example of this is the lack of importance placed within the included studies on the role of alcohol in pre-pregnancy life. Another is the absence of discussions of a woman's ethnicity as having any influence on her views on alcohol use in pregnancy. It is noticeable that of the studies included in this systematic review, the only study to take into account differences in accounts by ethnic groups was the study by Branco and Kaskutas [157]. However, despite that authors purposively sampling women from the Native American and African American populations, differences in perceptions between Native American and African American were not discussed in depth. In this respect, the systematic review is similar to the interviews in that neither have been effective at considering the potential influence of ethnicity.

7.5 Implications for policy and practice

In addition to the potential for further theoretical insights that have been previously outlined, the application of empirical data to reproductive citizenship has also borne insights that hold importance for policy and practice regarding alcohol use in pregnancy.

In particular, the evidence within this thesis points to a need to reassess the current public health messages that concern alcohol use in pregnancy. It can be argued that these messages are unified by an approach that is described as fetus – centric [240, 241]. This approach is characterised by the de-contextualisation of pregnancy from the rest of a woman's life course, an emphasis on individual maternal responsibility and they are often explicit in the assumption that the needs of the fetus should be considered as paramount. For example, the NHS Choices website in the UK contains a video entitled 'Can I drink alcohol while pregnant?' [242]. The video is hosted by a midwife called Tracey who is quoted as saying:

'Smoking and alcohol are never good things to give to your baby. You wouldn't sit there and gave your baby a pint of lager or a fag would you?' [242]

A further example of this approach can also be found within Italy, specifically a prevention campaign conducted by the Local Health Authority of Treviso [243]. This campaign consisted of a colour picture of a local alcoholic drink (known as spritz), at the top of the glass the slice of lemon and cubes of ice served with the drink are visible. Equally visible at the bottom of the glass is a fetus, depicted developing within the alcoholic liquid instead of amniotic fluid. The tag line to this picture was 'Mummy drinks, baby drinks' (translated from the Italian) [243].

This fetus-centric approach to public health messages would seem to comply with the discourses of reproductive citizenship. A good reproductive citizen is understood to be a woman who complies with the neo-liberal demands to take responsibility for her pregnancy, to feel and enact the moral obligation to put her fetus first and thus to avoid all risks. However, the analysis presented within this thesis has demonstrated that this interpretation of reproductive citizenship was not part of the narratives of women who continued to drink in pregnancy. For these participants, pregnancy was not understood as a time of containment but rather as a time of interembodiment and, therefore, both mother and fetus were important. Alcohol was a method of ensuring the emotional wellbeing of the mother and therefore the health of the pregnancy. Consequently, the prevailing fetus-centric approach to public health messages outlined above is unlikely to appeal to their target audience, women choosing to drink in pregnancy. Rather, it is possible that messages appealing to an understanding of pregnancy as an interembodied state would more effectively engage women continuing to drink. It is reaching an equilibrium between the fetus and the mother, the balancing of needs, that was at the core of this conceptualisation of pregnancy. Thus, effective messages should arguably equip pregnant women to make an informed choice about their drinking, acknowledging that pregnancy can feel a long time and that both the mother and the baby are important. Reducing alcohol to low levels consumption could be more helpfully characterised as a mechanism whereby women can maintain the needs of both their baby and themselves. It is possible that such messages could be formulated around the core concept of 'for me and for my baby' and that they would involve the use of images of both a pregnant mother existing as a person in her own right (i.e. socialising) and the child.

There are similar calls for a more contextual approach to public health messages emerging from the body of research concerning smoking in pregnancy. For example, Greaves et al

[241] examined the literature concerning interventions to reduce smoking in pregnancy that had been identified in two previously undertaken systematic reviews (covering the years 1990 to 2010 in total). They noted that despite the strong links between smoking in pregnancy and social disadvantage, interventions have promoted the neo-liberal concepts of personal responsibility by focussing strongly on individual behaviour change. The strongly fetus-centric approach to interventions is also argued to imbue health promotion with morality and thus to further marginalise pregnant smokers, frequently already marginalised by social disadvantage [240, 241]. Further, it could be argued that the fetus-centric approach has resulted in two limitations concerning the effectiveness of the messages [221]. Firstly, it has been identified that women are often only motivated to quit by concerns regarding fetal health and they intend to resume smoking after pregnancy. Secondly, risk perceptions of women continuing to smoke in pregnancy incorporate personal experiences of successful pregnancies to counter the bombardment of messages concerning the risks to the fetus.

Finally, the strong importance of social norms identified within this research indicates that there is a potential role for peer led interventions surrounding alcohol use in pregnancy. This mirrors the finding within breastfeeding promotion that social support is important for breastfeeding initiation and maintenance [244]. The potential for such a form of intervention is further highlighted by the evidence presented within this thesis that suggests that delivering alcohol advice in the antenatal care setting can be a difficult and complex undertaking for healthcare practitioners [182, 184, 185].

In summary, the research presented within this thesis adds to a growing body of literature calling for public health messages that take into account the context in which pregnant women live their lives and is not based on assumption that all women consider their pregnancy to be a time of containment, with the fetus as supreme. As Greaves [241] argues:

'a history of fetus-centric, individually oriented, decontextualized approaches have deterred interveners from developing transformative, women-centred approaches that are reflective of women's situations, social context, and experiences.' (page 1) [241]

7.6 Further research

7.6.1 Further research for policy and practice

It has been demonstrated that this research holds potentially important implications for public health practice concerning alcohol use in pregnancy and some suggestions have been made regarding how these messages may be re-formulated and delivered. However, currently these examples should be considered hypothesis that require further research to evaluate and refine.

There have been published examples demonstrating how public health messages have been developed from formative qualitative research [245]. With particular regard to alcohol use in pregnancy, France et al [246] published a study which demonstrated the development of messages aiming to promote abstinence during pregnancy amongst women currently pregnant and those of child-bearing age. The research consisted of two phases. Firstly, focus groups were performed to understand views on alcohol use in pregnancy and motivators for behaviour change. Four focus groups were performed, two with women who had had a baby in the previous three years, one with women who might choose to have a baby in the near future and one with pregnant women not currently drinking. The data from these focus groups were then used to develop a series of communication and modelling objectives and four television concept executions. The second phase examined these concept executions with a target audience to identify which concept had the most impact. Despite the comprehensive and explicit nature of the intervention development, the study is fundamentally flawed by the decision to exclude pregnant women consuming alcohol from the focus groups. As a consequence the messages identified focussed entirely on the negatives of drinking in pregnancy and did not encapsulate the reasoning of women choosing to drink. For example, a motivation for behaviour emerging from the focus groups was that abstaining can help you 'gain social approval', the authors identified that public health messages should therefore promote these desired feelings of social inclusion. A concept that emerged from this *'sought to appeal to the notion of the women doing everything she can to support the health of the fetus and therefore give herself peace of mind'* (page 1513) [246]. This concept fails to incorporate a key finding from my research that women continuing to drink can still be enmeshed within the norms of reproductive citizenship and, therefore, feel themselves to be socially included.

7.6.2 Further research with different population groups

As already outlined, one of the key factors emerging from this analysis was the importance of alcohol use in pre-pregnancy life. For many women in my sample, this was articulated in the way that alcohol held less significance for them in this stage of life characterised by being mothers / partners in steady relationships. It could be hypothesised that narratives of alcohol use in pregnancy could be different for those pregnant women at a stage in their life when alcohol is considered more integral to their maintenance of a social identity. It is, therefore, important to interview women experiencing adolescent pregnancy regarding their thoughts on alcohol use to determine if their narratives are different to women experiencing pregnancy in their 20s and 30s.

Similarly, I have outlined that both my study and the systematic review have not adequately considered the views of women from a range of different ethnic minority groups. As such, similar research should be conducted in these populations because alcohol and pregnancy is likely to have different meanings in different cultural contexts.

7.6.3 Further research of theoretical concern

Thus research is limited to alcohol use in pregnancy and I have demonstrated that reproductive citizenship is a useful theoretical tool to highlight this area. However, it should also be applied to empirical accounts of other health areas in pregnancy, for example dietary and exercise choices, to determine if it can help illuminate those areas and to further strengthen the framework.

Finally, I have shown that socioeconomic status did not produce greatly varying narratives regarding alcohol use in pregnancy. I have argued that this is because reproductive citizenship is a malleable framework and all the women I interviewed were integrated into their own understanding of it. It is possible that this could be further examined using Bourdieu's concepts of capital [235].

7.7 Conclusions

This research aimed to explore women's understanding of their drinking behaviour during pregnancy. The specific objectives were to: (1) to conduct in-depth interviews to explore women's perceptions of their alcohol use in pregnancy; and (2) to conduct a systematic

review of the qualitative literature concerning alcohol use in pregnancy. These aims and objectives were met and some key findings made. These are summarised below.

This research has made an important contribution to the development of reproductive citizenship as a theoretical concept. In particular, this work highlights the need for the theory to incorporate an understanding of pregnant self-regulation that is contextual and involves more than a desire to comply with expert discourses. This complexity of self-regulation is further reinforced when considering the important role of alcohol use in life before pregnancy within women's narratives. Thus, it is essential that pregnancy be considered as period that is integrated into the life course of a woman and not an isolated event. A further way in which the findings of this research help to improve understandings of reproductive citizenship is by pointing to a more nuanced consideration of how the discourse of good motherhood is understood and practised by pregnant women. Critically, within reproductive citizenship it is accepted that the commonly held understanding of what it means to be a good mother is synonymous with the demands of the discourse of intensive mothering. In particular the role of maternal self-sacrifice is particularly important in understanding how women make decisions regarding potentially 'risky' activities. However, within my interviews the women that continued to drink did not conceptualise pregnancy as a time in which self-sacrifice was essential to being a good mother. Rather, they conceptualised pregnancy as a time in which it was important to maintain the needs of both mother and child.

These findings are not only relevant theoretically but they also improve the understanding of how pregnant women consider and articulate their decisions during pregnancy. Thus, this thesis has implications for future preventative work surrounding alcohol use in pregnancy. In particular, the need for prevention messages which do not focus solely on the fetus-centric conceptualisation of pregnancy as a time of containment is emphasised. It is argued that messages which acknowledge the potential importance of alcohol for the mother and the need to balance the needs of mother and child are likely to be more effective at engaging those women who wish to continue to drink in pregnancy.

Finally, this research also adds to the body of literature concerning the medicalisation of pregnancy and the concept of an agentic pregnancy being one in which women are defying biomedical norms. This understanding of agency in pregnancy was particularly apparent from the systematic review. However, in the interviews I performed both women drinking

and those abstaining were acting in accordance with their social norms and their cultural understanding of how a good reproductive citizen should act. Thus, critically, neither group of women were acting in the agentic or passive way described within the literature. Therefore, this research also adds to the growing body of literature calling into question how the medicalisation of pregnancy has been understood.

Appendix A: Topic guide used in interviews

1. How many weeks pregnant are you?
2. Is this your first pregnancy?
3. I would like to ask you some questions about your drinking habits before you became pregnant, if you wouldn't mind? (How often? In what circumstances? With whom?)
4. Before you were pregnant were there times in your life when you drank more alcohol than normal? Why do you think this was the case? Where there any specific factors that pushed up the amount you drank?
5. Before you were pregnant were there times in your life when you drank less alcohol than normal? Why do you think this was the case? Where there any specific factors that helped you reduce your drinking?
6. Have you received any advice about alcohol use when you have been pregnant?
7. Have you changed the way you drink alcohol since becoming pregnant? What do you think has been important in helping you make the decision to change / not change your drinking patterns?
8. If this is not first pregnancy: have the decision you have made about alcohol in this pregnancy been the same as in previous pregnancies?
9. Do you think that being pregnant has changed the way you think or feel about alcohol?
10. Have you ever felt that people make judgements about pregnant women who drink alcohol? Why do you think this may be?

Appendix B: Evidence of NHS ethical approval



National Research Ethics Service

County Durham & Tees Valley 2 Research Ethics Committee

Professorial Unit of Surgery
University Hospital of North Tees
Piperknowle Road
Stockton-on-Tees
TS19 8PE

Telephone: 01642 624164
Facsimile: 01642 624164

26 September 2008

Miss Kirsty E Bristow
NIHR Researcher Training Fellow
Newcastle University
Institute of Health and Society
Fourth Floor, William Leech Building
Medical School, Newcastle University, Newcastle upon Tyne
NE2 4HH

Dear Miss Bristow

Full title of study: Understanding women's perspectives on alcohol consumption before and during pregnancy: towards the design of a health promoting intervention for primary care

REC reference number: 08/H0908/71

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

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

Confirmation of ethical opinion

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

Ethical review of research sites

The Committee has designated this study as exempt from site-specific assessment (SSA). The favourable opinion for the study applies to all sites involved in the research. There is no requirement for other Local Research Ethics Committees to be informed or SSA to be carried out at each site.

Conditions of the favourable opinion

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

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

Management permission at NHS sites (“R&D approval”) should be obtained from the relevant care organisation(s) in accordance with NHS research governance arrangements. Guidance on applying for NHS permission is available in the Integrated Research Application System or at <http://www.rdforum.nhs.uk>.

Approved documents

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

<i>Document</i>	<i>Version</i>	<i>Date</i>
Application	5.6	13 August 2008
Investigator CV		13 August 2008
Protocol	3	03 January 2007
Covering Letter		15 August 2008
Peer Review		
Interview Schedules/Topic Guides	2	12 August 2008
Participant Information Sheet	2	17 September 2008
Participant Consent Form	2	17 September 2008
Personal Award Letter		06 July 2007
Letter of indemnity from Newcastle University		15 August 2008

Statement of compliance

The Committee is constituted in accordance with the Governance Arrangements for Research Ethics Committees (July 2001) and complies fully with the Standard Operating Procedures for Research Ethics Committees in the UK.

After ethical review

Now that you have completed the application process please visit the National Research Ethics Website > After Review

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

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

- Notifying substantial amendments
- Progress and safety reports
- Notifying the end of the study

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

We would also like to inform you that we consult regularly with stakeholders to improve our service. If you would like to join our Reference Group please email referencegroup@nres.npsa.nhs.uk.

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

Yours sincerely

Leigh Pollard

RP **R Duncan**
Chair

Email: leigh.pollard@nhs.net

Enclosures: "After ethical review – guidance for researchers"

Copy to: Ms A Tortice, Research & Development Department, 4th Floor,
Leazes Wing, Royal Victoria Infirmary, Queen Victoria Road,
Newcastle upon Tyne, NE1 4LP

Appendix C: Evidence of NHS research governance approval

The Newcastle upon Tyne Hospitals

NHS Trust

LRF/HA/196

The Freeman Hospital
High Heaton
Newcastle upon Tyne
NE7 7DN

8 October 2008

Tel: 0191 233 6161
Fax: 0191 213 1968

Professor Eileen Kaner
Prof. of Public Health Research
Institute of Health and Society
4th Floor
William Leech Building
Medical School
Newcastle University

Dear Professor Kaner,

Trust Approval for R&D Project: 4643

Title of Project: Understanding women's perspectives on alcohol consumption before and during pregnancy: towards the design of a health promoting intervention for primary care.

Principal Investigator: Professor Eileen Kaner

Funder (proposed): NIHR

Sponsor (proposed): The Newcastle upon Tyne Hospitals NHS Foundation Trust

The Trust grants approval for the above project, dependent upon:

- (i) you, as Principal Investigator, agreeing to comply with the Department of Health's Research Governance Framework for Health and Social Care, and understanding their responsibilities and duties (a copy of guidelines prepared by the Trust R&D Office are enclosed)
- (ii) you, as Principal Investigator, ensuring compliance of the project with all other legislation and guidelines including Caldicott Guardian approvals and compliance with the Data Protection Act 1998, Health and Safety at Work Act 1974, any requirements of the MHRA (eg CTA, EudraCT registration), and any other relevant UK/European guidelines or legislation (eg reporting of suspected adverse incidents).

Sponsorship

The Newcastle upon Tyne Hospitals NHS Foundation Trust will act as Sponsor for this project, under the Department of Health's guidelines for research in health and social care.

In addition, the Trust has a Research Governance Implementation Plan, agreed with the Department of Health, in order to fully comply with Research Governance and fulfil the responsibility of a Sponsor.

As the Trust is acting as Sponsor for the research and where some of the research is taking place outside of Newcastle upon Tyne, then all costs must be met for research governance audit visits to those sites. It is the responsibility of the PI to provide confirmation to the Trust of who will

pay these costs. Audit is required under the Research Governance Framework for Health and Social Care. (Please note that the Trust randomly audits 10% of all its active research annually.)

You must notify the R&D Office if any changes to the protocol, etc. are agreed with the Ethics Committee or if there are any associated changes in cost relating from such alterations. It is imperative that the R&D Office retains a *complete* and up-to-date set of all such material.

It is also the Principle Investigator's responsibility to ensure that all staff involved have Honorary Contracts, where necessary, issued prior to commencing the research. Please be aware that Honorary Contracts will not be issued without a favourable ethical opinion and funding.

In addition, unless otherwise agreed with the Trust, the research will be covered for negligence under the CNST (Clinical Negligence Scheme for Trusts), however cover for no-fault harm is the responsibility of the Principal Investigator to arrange if required.

Please also note that for any NHS employee who generates Intellectual Property *in the normal course of their duties*, it is recognised that the Intellectual Property Rights remain with the employer and not the employee.

Yours sincerely,



Sir Leonard R Fenwick CBE
Chief Executive

Enc

cc Mrs C Hughes, Finance Department, Room 203, Cheviot Court, Freeman Hospital
Dawn Reed, Chief Executive's Office, Freeman Hospital
Dr S Sturgiss, Clinical Director, Women's Services, Royal Victoria Infirmary
Mrs Moira Hodgson, Responsible Clinician, Head of Community Midwifery, Royal Victoria Infirmary



Understanding health behaviours in pregnancy: perspectives on alcohol

Participant Information Sheet

You are being invited to take part in a research study. The study will involve talking to a researcher from the Institute of Health and Society, Newcastle University, about what you think about alcohol use in pregnancy. Before you decide if you wish to take part it is important for you to know why we want to carry out this research and what it will involve for you. This leaflet explains what taking part will mean for you.

Please read the leaflet carefully and talk to others about it if you want to. Ask us if there is anything that you don't understand or that you would like more information on. Take time to decide if you want to take part in the study or not.

Thank you for reading this.

What is this study about?

We know that pregnancy can be a confusing time and that there is a lot of different advice about what and how much women should drink when they are pregnant. This study will try and understand from pregnant women themselves what they think about drinking in pregnancy and what has helped them make their decision.

Why have I been asked to take part in this study?

You have been asked to take part in this study because you are a pregnant woman under the care of a community midwife working for Newcastle Upon Tyne Hospitals NHS Foundation Trust. All pregnant women being cared for by these midwives will be asked to take part. We hope to interview about 40 women.

Do I have to take part?

It is up to you to decide. We will describe the study and go through the information sheet with you, which you can keep. If you decide to take part you will be asked to sign a consent form. You are free to change your mind and withdraw your consent at any time; you will not need to give a reason. If you do decide not to take part in the study any data from your interview will be destroyed and not used in the analysis. A decision not to take part, or to leave the study, will not affect the care you receive during your pregnancy and beyond.

What will happen to me if I take part?

If you agree to take part in this study you will be consenting to one interview with a researcher from Newcastle University called Kirsty Bristow. Her photograph is to the right. The aim of the interview is to try and understand what you think about drinking alcohol during pregnancy in general and what has influenced your decisions in your pregnancy. The interview will take about one hour and will take place at a time and location that is convenient for you. After this interview you will not be asked to do anything else as part of this study.



The interview will be tape recorded so that the researcher can have a record of what was said. After the interview is over the tape will be listened to and typed up, when this happens anything that has been said that could identify you or anyone else will be deleted. After it has been typed up the tape will be destroyed. All data analysis will be based on the written account of the interview, which will be fully anonymous. It is possible that quotations from things you said during

the interview will be part of the publications from the study but it will not be possible for anyone to identify you in any of the quotes and no-one else will know you have taken part in the study.

Payment of expenses

Any money that you may spend travelling to the interview or for any childcare you may need to arrange so that you can be interviewed will be paid back to you as long as you can produce a receipt.

What are the potential advantages or risks to me taking part?

We cannot promise that this study will help you directly but the findings of this study will help improve health professionals' abilities to advise women about alcohol use in pregnancy and to understand pregnant women's opinions. We are confident that you will not experience any harm as a result of taking part in this research study. However, if you are harmed during the research and this is due to the researcher's negligence then you may have grounds for a legal action for compensation against Newcastle upon Tyne Hospitals NHS Foundation Trust. You may have to pay your legal costs

What if there is a problem?

If something goes wrong and you have a complaint about the study you should speak to Kirsty Bristow: Telephone: 0191 222 5425; Email: kirsty.bristow@newcastle.ac.uk

If you would rather not talk to Kirsty you should speak to Eileen Kaner. Eileen is a Professor at the University and also a member of the research team: Telephone: 0191 222 7884; Email: e.f.s.kaner@ncl.ac.uk

If you would like to talk to someone who is not part of the research team please contact Dr Paul Cassidy (a GP in Gateshead): Dr Paul Cassidy, Teams Medical Practice, Watson Street, Gateshead, Tyne & Wear, NE8 2PQ. Telephone: 01914604239; E-mail: paul.cassidy@gp-a85023.nhs.uk

If you are still unhappy after talking to Kirsty, Eileen or Paul you can complain formally through the NHS complaints procedure (details can be obtained from the Royal Victoria Infirmary in Newcastle).

Will my taking part in this study be kept confidential?

Yes. All information collected about you during this research will be kept confidential. The only person who will be able to look at information with your name and / or address on will be the researcher, Kirsty Bristow. Information that is analysed within the University will be fully

anonymised, so it could not be used to identify you. All information will be stored on a password protected computer.

Anonymous data will be kept for 10 years within the University and it will be kept according to the rules of the Data Protection Act. After 10 years, the data will be destroyed securely. The only information that will be kept that would have your name on it would be the signed consent form. This will be stored in a separate place from the rest of the data.

Researchers work to the same rules of confidentiality as doctors and nurses. Thus confidentiality can only be broken, without your consent, in very exceptional circumstances.

However, if the researcher sees or is told anything that raises serious concerns for your or baby's wellbeing it may be conveyed to the midwife responsible for your antenatal care.

What happens to the results of the study?

The results of the study will be available to all the women who have taken part if they want to know them. The study will also be published in scientific journals and presented at scientific conferences. You will not be identified in any information written about the study.

Who is funding and organising the study?

The study has been funded by the National Institute for Health Research and it has been reviewed by a Local Research Ethics Committee. The research is sponsored by the NHS Trust that is responsible for the antenatal care you have received, The Newcastle Upon Tyne Hospitals NHS Foundation Trust.

Who can I contact for further information?

If you are interested in the study and would like to know more please tell your midwife, who will then pass on your details to Kirsty Bristow. Kirsty will then contact you in a couple of days to discuss the study in more detail with you and see if you would like to take part. If you have any questions in the meantime please feel free to contact Kirsty using the following details:

Kirsty Bristow, Institute of Health and Society, Newcastle University, NE2 4AA

Telephone: 0191 222 5425 Email: kirsty.bristow@newcastle.ac.uk

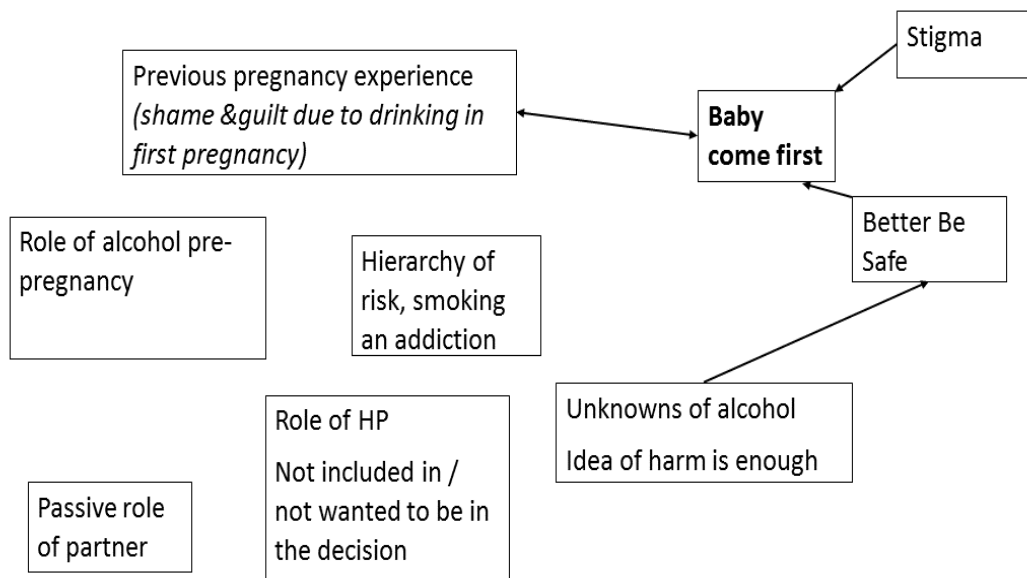
If you would like to discuss the research with someone who is not part of the research team please contact Dr Paul Cassidy (a GP in Gateshead) using the details at the top of this page.

Thank you very much for taking the time to read this leaflet.

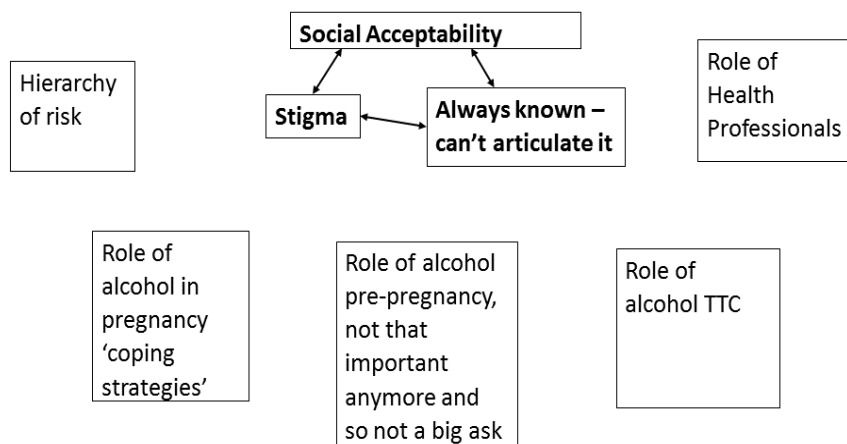
Appendix E: Example of how participant analysis maps helped the analysis

The below examples of the diagrams produced from reading the accounts of participant 8 and 18 have been chosen as examples because they illustrate how the diagrams helped me to determine relationships that emerged in the final themes. For example, in both diagrams ideas of the social acceptability and stigma surrounding alcohol use are present. This helped me to confirm that for both drinkers (participant 8) and abstainers (participant 18) these ideas were crucially important, just expressed differently. Participant 18's account was very strong in the moral ideas of motherhood that are characterised within the theme 'baby comes first'. These ideas were absent in participant 8's account.

Map of Participant 18



Map of Participant 8



Appendix F: Search terms employed within the bibliographic databases as part of the systematic review

	ALCOHOL search terms	PREGNANCY search terms	QUALITATIVE search terms
Medline database	<p>MESH key terms: Alcohol drinking OR exp Alcoholic Beverages OR Alcohol-Related Disorders OR Alcoholism OR Alcohol-Induced Disorders OR Alcoholic Intoxication OR Fetal Alcohol Syndrome OR Ethanol/po OR Temperance OR</p> <p>Text words: alcohol consum\$.tw OR alcohol misuse.tw OR alcohol abuse.tw OR alcohol intoxicat.tw OR alcohol drinking.tw OR alcohol disorder.tw OR alcohol dependan\$.tw OR alcoholi\$.tw OR binge drinking.tw OR (binge adj3 alcohol).tw OR social drinking.tw OR (risk adj3 alcohol).tw OR (occasion\$ adj3 drinking).tw OR intoxicat\$.tw OR drunk\$.tw OR booze.tw OR alcoholic beverage.tw OR wrecked.tw OR pissed.tw OR liquor.tw OR beer.tw OR wine.tw OR spirits.tw OR temperan\$.tw OR (abstinen\$ adj3 alcohol).tw OR sober.tw OR sobriety.tw OR teetotal.tw OR (alcohol adj3 moderat\$).tw OR fetal alcohol syndrome.tw OR fetal alcohol spectrum disorder.tw OR alcohol related birth defects.tw OR fetal alcohol effects.tw OR prenatal alcohol affects.tw OR alcohol related neurodevelopmental disorder.tw</p>	<p>MESH key terms: Pregnancy OR Pregnancy, High-Risk OR Pregnancy Outcome OR Maternal Age OR Pregnancy in Adolescence OR Pregnancy Complications OR Prenatal Exposure Delayed Effects OR Prenatal Care OR Preconception Care OR Maternal Exposure OR Maternal–Fetal Relations OR Pregnant Women OR Maternal Welfare OR Maternal-Child Nursing OR Obstetrical Nursing OR Maternal Behavior OR</p> <p>Text words: gestation\$.tw OR matern\$.tw OR mother.tw OR pregnan\$.tw OR prenatal.tw OR obstet\$.tw OR antenat\$.tw OR gravid\$.tw</p>	<p>Qualitative research OR interview.tw OR px.fs OR qualitative.tw</p>

	ALCOHOL search terms	PREGNANCY search terms	QUALITATIVE search terms
Embase database	<p>Thesaurus key terms: Alcohol Drinking OR exp Alcoholic Beverages OR Alcohol-Related Disorders OR Alcoholism OR Alcohol-Induced Disorders OR Alcoholic Intoxication OR Fetal Alcohol Syndrome OR Ethanol/po [Poisoning] OR Temperance</p> <p>Text words: As for Medline</p>	<p>Thesaurus key terms: Pregnancy, High-Risk OR Pregnancy Outcome OR maternal age OR Pregnancy in Adolescence OR Pregnancy Complications OR Prenatal Exposure Delayed Effects OR Prenatal Care OR Preconception Care OR Maternal Exposure OR Maternal-Fetal Relations OR Pregnant Women OR Maternal Welfare OR Maternal-Child Nursing OR Obstetrical Nursing</p> <p>Text words: As for Medline</p>	<p>Interview.tw OR qualitative.tw OR exp Health Care Organisation</p>
Psycinfo database	<p>Thesaurus key terms: Alcohol Rehabilitation OR Alcoholism OR Alcohol Abuse OR Sobriety OR Alcohol Drinking Attitudes OR Alcohol Drinking Patterns OR Alcohol Intoxication OR Binge Drinking OR Social Drinking OR Underage Drinking OR Drinking Behavior OR Alcoholic Beverages OR Alcohol Withdrawal OR Fetal Alcohol Syndrome OR Prenatal Exposure OR Prenatal Development</p> <p>Text words: As for Medline</p>	<p>Thesaurus key terms: Human Females OR Risk Factors OR At Risk Populations OR Pregnancy OR Infant Development OR Adolescent Pregnancy OR Life Changes OR Obstetrical Complications OR Perinatal Period OR Postnatal Period OR Prenatal Care OR Reproductive Health OR Pregnancy Outcomes OR Obstetrics OR Midwifery OR Fetus OR Mothers OR Expectant Mothers OR Mother Child Relations</p> <p>Text words: As for Medline</p>	<p>experience.mp. OR interview.tw. OR qualitative.tw. OR exp qualitative research</p>
Cinahl database	<p>Thesaurus key terms: alcohol drinking OR alcohol rehabilitation programs OR Substance Abuse, Perinatal OR Alcohol-Related Disorders OR Alcohol Abuse OR Alcoholic Intoxication OR Alcoholism OR Fetal Alcohol Syndrome OR Alcoholic Beverages OR Wine OR alcoholics</p> <p>Text words:</p>	<p>Thesaurus key terms: Periconceptual Period OR pregnancy OR Pregnancy, High Risk OR Pregnancy, Unplanned OR Pregnancy, Unwanted OR prenatal exposure delayed effects OR Pregnancy in Adolescence OR maternal age 35 and over OR attitude to pregnancy OR pregnancy complications OR pregnancy outcomes OR Maternal-Child Health OR Maternal welfare OR prenatal bonding OR obstetric care OR expectant mothers OR midwifery OR nurse midwifery OR obstetric</p>	<p>Attitude+ OR Interviews+ OR Qualitative Studies+ OR Study Design</p>

	ALCOHOL search terms	PREGNANCY search terms	QUALITATIVE search terms
	As for Medline	nursing OR perinatal nursing OR obstetric patients OR obstetrics OR maternal attitudes OR maternal behavior OR maternal health services OR prenatal care OR perinatal care OR prepregnancy care OR motherhood OR midwifery service OR Nurse-Midwifery Service OR obstetric service Text words: As for Medline	
Scopus database	Text words: As for medline	Text words: as for Medline	Text words: qualitative OR interview* OR focus group OR thematic OR theme* OR grounded theory OR ethnograph* OR experience* OR attitude* OR belie* OR understand* OR view* OR explor*
Assia, Eric, Ibss, Pilots, Social Services Abstract, Sociological Abstracts National Criminal Justice Reference Service Abstracts (all via CSA platform)	Text words: As for Medline	Text words: As for Medline	Text words: As for Scopus
Article First, ECO, Francis, Ebooks, Papers First, Proceedings, World Cat, World Cat Dissertations (all via OCLC platform)	Text words: As for Medline	Text words: As for Medline	Text words: As for Scopus
Science Citation Index, Social Sciences Citation Index, Conference proceedings citation	Text words: As for Medline	Text words: As for Medline	Text words: As for Scopus

	ALCOHOL search terms	PREGNANCY search terms	QUALITATIVE search terms
index (all via Web of Knowledge platform)			
Maternity and Infant Care	Text words: As for Medline	Text words: As for Medline	Text words: As for Scopus
Proquest Nursing and Allied Health Source	Text word: Alcohol	Text word: Pregnan*	No filter applied

Appendix G: 'In/out' Form used in the systematic review

Study Reference		
Reviewer details		
Name of reviewer:		
Date of review:		
Screening Information		
Question	Judgement	Action Required
Is the study written in English	Y / N / Unclear	If Yes – go to next question If No- EXCLUDE If unclear – discuss with KL
Is the study primary qualitative research only	Y / N / Unclear	If Yes – go to next question If No- EXCLUDE If unclear – discuss with KL
Does the study involve only women who are currently pregnant	Y / N / Unclear	If Yes – go to next question If No- EXCLUDE If unclear – discuss with KL
Does the study aim to understand 'views about alcohol use during pregnancy'	Y / N / Unclear	If Yes – go to next question If No- EXCLUDE If unclear – discuss with KL
Does the study include women who are dependent upon alcohol	Y / N / Unclear	If Yes – EXCLUDE If No- Include If unclear – discuss with KL
Inclusion / Exclusion Decision (please circle as appropriate)		
Include	Exclude	Need to discuss with KL

Appendix H: Data extraction form used in the systematic review

Study Reference		
Reviewer Details		
Name of Reviewer		
Date of Review		
Study Context		
Research Question / Aim		
Location of study (<i>i.e. country, region</i>)		
Years of study (<i>N.B. different to year of publication</i>)		
Target Population		
Study Design		
Theoretical approach		
Data Collection: <ul style="list-style-type: none"> - Method (<i>i.e. interview, focus group</i>) - Tools used in data collection (<i>i.e. notes, audio recordings</i>) - What has been counted as data? (<i>i.e. verbatim transcripts, fieldwork notes</i>) - Nature of researcher involvement (<i>i.e. number of researchers, who did what & when</i>) 		
Sampling and recruitment strategy: <ul style="list-style-type: none"> - Was a sampling strategy used? - Was the sampling strategy justified? - Inclusion and exclusion criteria? - Justification for halting recruitment provided? 		
Study Participants		
Number of instances of data collection		
Sample size		
Sample attrition?		
Relevant Participant characteristics		
Data Analysis		
Method		
Researcher involvement (<i>i.e. number of researchers involved, who did what and how?</i>)		
Findings		
How are results presented?		
Summary of main findings according to author		
Author's conclusions		
Quality Assessment Summary (<i>narrative summary of quality assessment informed by chosen method</i>)		
Other		
References	Possible new includes	
	Background papers	

Appendix I: Citations of studies excluded after full paper review and reasons for exclusion within the systematic review

Study Citation	Reason for exclusion
Alvarez, 2008 [151]	Was not limited to women currently pregnant or <1 year postpartum. Did not aim to understand views on alcohol use in pregnancy.
Balachova et al, 2007 [247]	Was not limited to women currently pregnant or <1 year postpartum.
Bennet & McIlwaine, 1985 [152]	Did not present primary qualitative data.
Castro & Coe, 2007 [153]	Did not aim to understand views on alcohol use in pregnancy. Did not present primary qualitative data.
Coleman et al, 1990 [203]	Did not present primary qualitative data.
George et al, 2006 [248]	Did not present primary qualitative data.
Hartje et al, 2011 [249]	Did not present primary qualitative data.
Hunt et al, 2005 [250]	Was not limited to women currently pregnant or <1 year postpartum.
John, 2008 [251]	Did not present primary qualitative data.
Jones et al, 2011 [183]	Did not aim to understand views on alcohol use in pregnancy.
Killingsworth, 2006 [200]	Did not aim to understand views on alcohol use in pregnancy. Was not limited to women currently pregnant or <1 year postpartum.
Kowalsky & Verhoef, 1999 [252]	Did not aim to understand views on alcohol use in pregnancy. Was not limited to women currently pregnant or <1 year postpartum.
McKean, 2011 [253]	Did not present primary qualitative data. Was not limited to women currently pregnant or <1 year postpartum.
Rhodes et al, 1994 [254]	Did not present primary qualitative data. Did not exclude women dependent upon alcohol.
Stuart, 2009 [176]	Was not limited to women currently pregnant or <1 year postpartum.
Tiedje & Stommel, 1992 [255]	Did not present primary qualitative data.
Waterson, 2000 [256]	Was not limited to women currently pregnant or <1 year postpartum.
Weigers & Sherraden, 2001[257]	Did not aim to understand views on alcohol use in pregnancy. Was not limited to women currently pregnant or <1 year postpartum.
Sudia-Robinson, 1994 [258]	Did not present primary qualitative data. Was not limited to women currently pregnant or <1 year postpartum.
Mesteth, 1995 [259]	Did not present primary qualitative data.
Mueller, 1994 [260]	Did not present primary qualitative data. Was not limited to women currently pregnant or <1 year postpartum.
Edvardsson et al, 2011 [261]	Was not limited to women currently pregnant or <1 year postpartum.
Hutcheson, 1981 [262]	Did not present primary qualitative data.
Irvin, 1995 [263]	Did not exclude women dependent upon alcohol.
Agberotimi, 2013 [264]	Undergraduate dissertation
Anderson et al, 2014 [265]	Was not limited to women currently pregnant or <1 year postpartum. Did not aim to understand views on alcohol use in pregnancy.
Armstrong et al, 2014 [266]	Was not limited to women currently pregnant or <1 year postpartum. Did not aim to understand views on alcohol use in pregnancy.
Badry & Felske, 2013 [267]	Was not limited to women currently pregnant or <1 year postpartum. Did not aim to understand views on alcohol use in pregnancy. Did not exclude women dependent upon alcohol.

Study Citation	Reason for exclusion
Badry & Felske, 2013 [268]	Was not limited to women currently pregnant or <1 year postpartum. Did not aim to understand views on alcohol use in pregnancy. Did not exclude women dependent upon alcohol.
Elek et al, 2013 [269]	Was not limited to women currently pregnant or <1 year postpartum.
France et al, 2013 [246]	Was not limited to women currently pregnant or <1 year postpartum.
Hammer & Burton-Jeangros, 2014 [160]	Did not aim to understand views on alcohol use in pregnancy.
Meurk et al, 2014 [270]	Was not limited to women currently pregnant or <1 year postpartum.
Papen, 2013 [271]	Did not aim to understand views on alcohol use in pregnancy.
Sudo, 2011 [272]	Did not aim to understand views on alcohol use in pregnancy.
Watt et al, 2014 [149]	Did not exclude women dependent upon alcohol.

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