Becoming a mother

A research synthesis of women's views on the experience of first time motherhood

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REPORT

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Executive Summary

Background

Systematic reviews of research literature are a cost-effective, cumulative approach to ensuring that policy, practice and academic work are as informed as possible about studies that have already been carried out in a particular area. This project is a systematic review of research relating to women's experiences of the transition to motherhood, part of a growing literature on the synthesis of qualitative research. Much of this literature has highlighted problems about the quality of such research, particularly in reporting samples and methods and in linking conclusions to data.

The substantive focus of the review reported here, the birth of a first child, is an important point of transition and change for women and for families. Childbirth itself is a critical area of health care policy, and one that has been the subject of considerable debate in recent decades. A key focus of our systematic review is how research on both social and health care dimensions of the transition to motherhood has, or has not, changed in the period since the 1970s. The topic of our review is also a critical area of family policy, involving broad questions relating to material and social support for families with young children, and about women's relationship to the labour force; an area that has seen significant changes in recent decades.

Methods

The aim of the review was systematically to collect and analyse research studies examining women's experiences of having their first child by asking:

1.	What research has been undertaken that studies the influences, identified by women, which affect them in becoming a mother?
2.	To what extent have these influences changed since the 1970s?
3.	How do different social and medical factors influence women's experiences of the transition to motherhood?
4.	What does a synthesis of such studies contribute to the evolving methodology of systematic reviews in the social sciences?
5.	What kinds of samples and methods characterise transition to motherhood research, and how trustworthy is the evidence base?

The objective of our review was to focus on studies that directly report data on women's experiences by focusing on identity. The review followed the standard procedures developed by the EPPI-Centre and other research groups for undertaking systematic reviews of research. Following the standard systematic review model, our review consisted of a number of stages:

- Specification of the inclusion criteria to be used for locating relevant research literature (reporting primary research; focusing on first-time motherhood; describing women's experiences, perceptions or ideas relating to the transition to motherhood; published in English between 1975 and 2009);
- Literature searches of several multidisciplinary electronic databases, conference proceedings, personal contacts and reference citation chasing;
- Keywording ('coding') of relevant located literature;

- A descriptive 'map' of the literature, developed from a 10% random sample of the located references plus key studies suggested by the Advisory Group; and
- An in-depth review of a subset of the research addressing specific research questions based on previously developed EPPI Centre quality assessment and data extraction tools and analysed using thematic synthesis methods.

All three co-investigators jointly took decisions about the conduct of the review, guided by input from an Advisory Group of researchers, practitioners and policy customers who met twice. Two researchers conducted independent keywording and quality assessment of the studies and met to discuss and resolve ratings, with disagreements resolved by a third reviewer. Implications for policy, practice and research were developed from the thematic synthesis, with a second reviewer checking the quotes, identified factors and derived themes for consistency and validity.

Results

A total of 13,404 unique references were located through searching; of these, 1,642 were screened for inclusion in the map and 125 studies were located and available for analysis. This indicated that research on women's views of motherhood have been published increasingly over the past thirty years, predominantly in the USA, UK and Ireland. Only 2% of reports conducted research with older first-time mothers (i.e. over 36 years). Women's mental health was the most popular main topic (increasing in popularity over time), followed by: employment/ education; teenage mothers (most prevalent in the 1990s); and identity/becoming a mother. Most studies of maternity care and assisted reproduction were carried out in the most recent decade. For the in-depth review, 13,404 unique references were again screened to identify 60 UK-specific studies of women's views about first-time motherhood. The three most popular main topics were identity, mental health and maternity care, which together accounted for over half the 60 studies. Most (75%) of the 60 studies were published since 2000. As in the descriptive map, a focus on teenage motherhood and education/ employment became more popular in the UK from 1990 on, reflecting heightening policy concern.

Demographic data were reported sparsely across studies. Age and place of residence were most frequently described, but this was not consistent. Crucially, over two thirds of the studies (68%) gave no or unclear information about the women's educational levels and over half lacked detail on occupational class (58%). Over the course of the three decades, those UK participants for whom information was provided were predominantly white, cohabiting with a partner and middle class. Over time, greater proportions of the women taking part in the research were from more diverse backgrounds and remained in education after age 16, reflecting more recent national statistics for women.

A total of 14 studies focused specifically on the issue of women's identity in the transition to motherhood and examined a range of psycho-socio-medical factors. Five high quality sociological studies were examined in more detail, eliciting 183 views on a range of key social and medical influences that women cited regarding the transition to motherhood. These fell into a range of broad themes, including information needs; mental and emotional status; physical status; relationship with partner; relationship with support networks; caring for a baby; paid employment; and experience of maternity care. These latter two themes were synthesised in more detail.

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Most themes related to paid employment appeared consistently over the past thirty years: views that informed each theme could be found in studies from each decade. Women comment that their relationship to others at work, their role at work and their employer's response to them all changed during pregnancy, which continued after birth and the return to work. They note a changing sense of connection with their communities, in paid employment or at home. Women who have given birth and are considering their return to paid employment clearly articulate their needs; and their ability to successfully arrange childcare, maternity benefits, working conditions and the return to work depends, in part, on workplace flexibility and ethos; and on individual and family needs, financial rewards and job prospects. In several studies, women described a change in their perception of time, and their relationship to it, once they stepped back from paid employment to focus on motherhood.

Women's views about the quality of care they received from health care providers appear to have remained fairly consistent across thirty years. What does appear different, based on studies in the past ten years, is that women describe more clearly that they have particular needs in relationships with their health care providers and the system in which care takes place. Women want to give birth on their own terms, but this focus is often muted as the pregnancy progresses to birth and the postnatal period. Some women also felt they lost out on choice when they were not provided with all of the options for care or when they felt forced into choosing a particular type of care. Providing simple, clear information in an unpatronising manner was valued by women, as was giving feedback on the growth and development of the baby throughout the pregnancy. Women were very clear that they did not appreciate aggressive body language, or a lack of compassion for their discomfort and pain, and complained about being treated as objects or ignored as parents.

Overall, navigating the childbearing year could be a challenging experience for women when they did not understand aspects of the process or system of maternity care. This was reflected in the way in which women describe 'shock' at how infrequently they saw their health care professional in the antenatal period, a time they expected important to develop a relationship with their health care provider. Expected information from their health care professional, for example about their planned place of birth, did not always emerge. Cursory initial contact with health care professionals in early labour and postnatally led to a sense of abandonment in hospital by unavailable health care professionals. Once at home, rather than negotiating the frequency or length of the visits provided by health care professionals, women could feel coerced into agreeing. Regardless, they describe gaining confidence in themselves and their ability to mother as time passed and they grew to understand the system, themselves and their infant.

Additionally, and sometimes unrelated to care from health care professionals, many women had a very different birth experience from the one they had anticipated. Despite feeling prepared for birth before the event, afterward they suggested that their ability to cope was less than they had expected. Many described being ill-prepared for the sheer power of birth itself. Women reported that the antenatal preparation and postnatal support they received was not sufficient to negotiate this.

Discussion & Conclusions

This systematic review used established methods to generate a picture of the kinds of published research undertaken over the past thirty years, of the methods this

research has used, the profiles of the women who have taken part in it and the extent to which its conclusions can be relied on as general pointers to the nature of first-time motherhood as a life-course transition. The research has been limited by time constraints, in that more time could have allowed for a more complete retrieval of the map literature and in-depth synthesis of more themes. Our focus on sociological studies was based on arbitrary boundaries. These may not have reflected important societal changes, such as one-to-one midwifery care, and changes in maternity leave benefits. Furthermore, searching for reports of first-time motherhood was challenging, due to poor descriptions by authors in title or abstracts, and poor indexing in social and medical electronic reference databases. This prompted us to use novel random sampling techniques, which provided a sense of the breadth of the transition to motherhood research, rather than the depth.

In drawing conclusions from this body of research about the main influences on the transition to motherhood, it is important to know how the evidence provided by the studies might compare with the evidence from a nationally representative sample of women having their first babies. This was very problematic, however, since many researchers simply did not provide much socio-demographic information about the women who took part. As the UK population becomes more diverse, and as this diversity remains persistently linked with patterns of social disadvantage, the relative homogeneity of research samples becomes more problematic. The patchy and inconsistent reporting by study authors of sociodemographic data means that the external generalisability of their research results is limited. In studies which contained usable data, samples tended to focus on white, middle class women's experiences of the transition to motherhood. Researchers need to be aware of these generalisability issues and address them in the design, conduct and reporting of their work. At a minimum, researchers need to design, measure and report on age (range and mean), socioeconomic class, and ethnicity in order to be clear about whom they are studying and to whom their research results will apply.

Regardless of these limitations, our systematic review found that there were a number of areas where there were gaps in the existing evidence base relating to research on the transition to motherhood. These included older mothers, first versus second time mothers, and diverse groups of women (e.g. ethnicities, specific social classes). Another important area for study emerged around the specifics of communication between women in labour and health care professionals. A systematic review of research into is needed, as this appears to be an area of tension highlighted in a number of studies. For example, women also have clear ideas initially about what they want during labour and birth, but these are often muted either by the situation, or by experts playing the 'safety' card, or by the power of the experience itself. Further, women described being 'lost' in the field of medical care, technical language, and experts' priorities throughout the childbearing year. This begins in pregnancy, peaks in childbirth and fades during the postnatal period as women locate themselves in their new role as mothers. This seems to lead to conflict between women and their health care providers, who, although concerned with providing the best possible care for women, are perhaps not listening as carefully as they could to women's ideas, needs and preferences. There was an increased use of Caesarean sections in more recent studies. Despite, or perhaps because of, this rise in surgical birth, Caesareans were not considered necessarily more influential on the process of becoming a mother than other interventions (for example, instrumental deliveries). Instead, it was the act of health care professionals' interventions in what women had expected to be a

normal self-directed process that had an impact on their transition to motherhood. This impact was noted in studies across all decades and merits further exploration.

Delay in childbearing age was evident in aspects of women's views: for example, more predominance of discussions regarding fertility; the conflict between established careers and a new maternal identity; anxieties about birth without complications and the baby's health, given the increased risks associated with higher maternal age. We are currently developing a research proposal for reviewing research on older first time mothers. However, primary and secondary research into first- versus second- time mothers is also recommended, as findings from women about their preferences for frequency and content of visits may inform future National Institute of Health and Clinical Excellence (NICE) antenatal and postnatal guidance, which currently concludes that women having their second and subsequent babies need fewer visits from midwives than first-time mothers.

Similarly, changes in women's perception of time while awaiting, and with, a new baby merit further research. Women's 'downshifting' to a more fluid perception of time at the end of pregnancy may be a natural mediator of physiological childbirth. In relation to the key themes of paid employment and views and experiences of maternity health care, there was often a discrepancy between expectation and reality, and between the perspectives of the women and their health care providers. In addition, there seems to be a temporal shift for women as they move from the regimentation of the working world to the more fluid rhythms of life awaiting, and with, children. Further research is needed to understand this phenomenon, and whether it is being disrupted by regimented schedules imposed during childbirth.

In order to help women make choices based on realistic expectations of labour and birth, midwives and doctors need to respect women's accounts of their expectations and needs and provide women with clear, individualised explanations of risks, incidence rates and outcomes in *first* births. This information is ideally based on an evidence base of sound epidemiological studies of physiological birth in low-risk women.

Finally, women recognise the need to develop and maintain strong support networks with partners, family, friends and their local communities in becoming mothers. In more recent research, women placed greater importance on organised activities (e.g. groups, classes) for pregnant women and new mothers than in earlier studies. It was suggested that women might now have less opportunity to be with new mothers and small babies (i.e. 'mothering apprenticeships'), which makes such organised activities necessary. There remained, however, a dominant reliance on information provided by health professionals, rather than on that found through other forums or individuals. Fostering strong communities where families have opportunities to thrive is therefore an important focus of health promotion for women as mothers.

1. Background

Systematic reviews of research literature are important ways of ensuring that policy, practice and academic work are as informed as possible about studies that have already been done in any particular area. They are a cost-effective mechanism for avoiding duplication of effort and for a cumulative approach to research evidence (Chalmers, 2003; Petticrew and Roberts, 2006). The project described in this report is a systematic review of research relating to women's experiences of the transition to motherhood. It is part of a growing literature on the synthesis of qualitative research (see e.g. Barnett-Page and Thomas, 2009; Dixon-Woods et al., 2006; Harden et al., 2009; Lucas et al., 2007; Thomas et al., 2004). Much of this literature has highlighted problems about the quality of such research, particularly in reporting samples and methods and in linking conclusions to data (see e.g. Booth, 2006).

The substantive focus of the review reported here, the birth of a first child, is an important point of transition and change for women and for families. Childbirth itself is a critical area of health care policy, and one that has been the subject of considerable debate in recent decades. A key focus of our systematic review is how research on both social and health care dimensions of the transition to motherhood has, or has not, changed in the period since the 1970s. The topic of our review is also a critical area of family policy, involving broad questions relating to material and social support for families with young children, and about women's relationship to the labour force. This is an area that has seen significant changes in recent decades.

2. Aims and methods

2.1 Research questions

The aim of the review was systematically to collect and analyse research studies examining women's experiences of having their first child. There are four key questions:

1.   What research has been undertaken that studies the influences, identified by women, which affect them in becoming a mother?

2.   To what extent have these influences changed since the 1970s?

3.   How do different social and medical factors influence women's experiences of the transition to motherhood?

4.   What does a synthesis of such studies contribute to the evolving methodology of systematic reviews in the social sciences?

A key concept underlying our approach to the review is that of identity. Identity change is managed by individuals in local social situations and is shaped by social-structural factors. Despite considerable structural changes in women's lives (more employment, less marriage, shifts in gender ideologies and practices), motherhood remains a strong element in personal identity. However, the relationships between motherhood, personhood and gender identity are complex, and the links with social factors and health care practices can be studied in many different ways. The objective of our review was to focus on studies that directly report data on women's experiences. We began with the hypothesis that recent research on the transition to motherhood, like that conducted in the 1970s, would identify factors relating to health care practices, social support, employment and the domestic division of labour as important influences on women's experiences of becoming mothers. We additionally hypothesized that recent research would embrace new factors such as fertility treatment, and reflect the enhanced importance of others, such as ultrasound imaging in pregnancy and surgical intervention in birth.

We asked an additional key methodological question:

1.   What kinds of samples and methods characterise transition to motherhood research, and how trustworthy is the evidence base?

2.2 Methods

The methods we used reflected the limited time period (12 months) and resources available for the review, and our intention both to be able to say something about the methodological status of transition to motherhood research over time, and about important policy and practice issues emanating from this body of research. The review followed the standard procedures developed by the EPPI-Centre and other research groups for undertaking systematic reviews of research (EPPI-Centre, 2006; Petticrew and Roberts, 2006). The central feature of such reviews is the use of explicit and transparent methods to locate as much as possible of the research relevant to a particular question, and to assess which studies yield the most reliable research evidence. Unlike traditional literature reviews, systematic reviews are designed to minimize the misleading conclusions that may be drawn

when only some relevant studies are found, and when there is no attempt made to scrutinize the methods researchers have used to ensure reliability and validity. Systematic reviews are often conducted with an explicit policy focus, and with the involvement of policy 'customers', so that the final synthesis can feed directly into significant policy questions (Oakley et al., 2005).

Following the standard systematic review model, our review consisted of a number of stages:

1. Specification of the criteria to be used for locating relevant research literature.

2. Literature searches.

3. Keywording of relevant located literature.

4. A descriptive 'map' of the literature.

5. An in-depth review of a subset of the research addressing specific research questions.

6. Conclusions about the capacity of the evidence base to address the key research questions, significant policy and practice issues, and pointers for future social science work in the area.

All three co-investigators jointly took decisions about the conduct of the review. We invited an Advisory Group of researchers, practitioners and policy customers to provide guidance on relevant studies and on methodological decisions about the focus of the review. The Group met twice, in April and November 2009. One of the three researchers (GB) was responsible for undertaking the literature searches and, together with an assistant, did the keywording and quality assessment of the studies (all quality assessments were done by two reviewers separately). Since the other two researchers (AO, MW) are authors of studies included in the review, it was important that they did not have a role in the assessment process.

2.2.1 Inclusion criteria

We defined as relevant to our review questions those studies which:

- report primary research;
- focus on first-time motherhood;
- describe women's experiences, perceptions or ideas relating to the transition to motherhood;
- are published in English (searches covered all languages, but we did not have resources for translation); and
- were published between 1975 and 2009.

2.2.2 Literature searches

We searched the following electronic databases: Anthropology Plus; Applied Social Sciences Index and Abstracts (ASSIA); the British Library OPAC Integrated Catalogue; Cumulative Index to Nursing and Allied Health Literature (CINAHL); the DART-Europe E-theses Portal; Index to Theses in Great Britain and Ireland; International Bibliography of the Social Sciences (IBSS); PubMed; PsycInfo; Social Care Online; Social Sciences Citation Index; and Sociological Abstracts. Web sources searched included: Google Scholar; ESRC Society Today; and the websites of the King's Fund, the Royal College of Midwives, the Royal College of Obstetricians and Gynaecologists, the National Childbirth Trust, the Association for

Improvements on the Maternity Services, Meet a Mum Association, Birth Choice UK, the Midwives' Information and Resource Service, and Cry-sis. Conference proceedings included those of the British Sociological Association and the Society for Social Medicine. Any located references published since 1975 were screened for inclusion. Further information on the search strategies used can be found on the EPPI-Centre website at http://www.ioe.ac.uk/study/departments/ssru/37968.html

Personal contacts were made with key researchers and organisations, including through the members of the review Advisory Group. Reference lists of located studies were scanned to pick up further studies.

2.2.3 The descriptive map

Due to the large number of references found using these searches, we decided to provide an overview of the international literature by screening a random sample of 10% of the studies, in addition to a number of studies suggested as key by the Advisory Group and/or leading researchers in the field. These studies were screened to assess whether they did in fact meet the inclusion criteria for the review. Those that did were then coded for the following characteristics: publication date; country of study; main topic; study design; sample size; and age group of women studied. Studies were also coded according to their disciplinary focus, based upon the study's listing of the authors' degrees or professional titles and affiliations, and the theoretical or disciplinary arguments referred to in the publication's introduction section. The coded studies provided a 'map' of the available research literature.

2.2.4 The in-depth review

On the basis of the literature map and guidance from the Advisory Group, we examined in more detail a smaller subset of the studies. The Advisory Group argued strongly for a focus on UK-based studies as providing the most useful and relevant information for most end-users. The most relevant research approached women's experiences of becoming mothers directly by asking women for accounts of these experiences. More 'quantitative' studies used predefined scales/ratings (for example Likert scales) to assess women's perceptions, or conceptualized motherhood as a composite of psychological or social measures, again using standardized indices. Such studies do not necessarily allow women to talk about their experiences outside these preset frameworks. Following the Advisory Group's recommendation, and the logic of a focus on open-ended qualitative approaches, we added two further inclusion criteria:

- studies conducted on UK samples; and
- studies which asked directly for women's views about becoming mothers.

In order to identify studies for the in-depth review we went back to the initial full list of references (not the random sample) and searched specifically for UK studies. The tool used to extract data from studies included in the in-depth review used standard EPPI-Centre questions (Peersman et al., 1997) plus additional ones specific to this review. Included studies were coded for main focus and for PROGRESS indicators. PROGRESS is a mnemonic referring to Place of residence, Race/ethnicity, Occupation, Gender, Religion, Education, Socio-economic status and Social capital (Evans and Brown, 2003). These descriptors provide a classificatory framework for assessing the socio-demographic profiles of populations included in research. The questions in our data-extraction tool covered study aims, main topic and discipline, sample characteristics, methods of

recruitment and data collection and main influences recorded in the study on women's experiences of the transition to motherhood.

A final stage of the in-depth review involved a subset of the studies dealing with a specific aspect of the transition to motherhood. We examined these for methodological quality. The quality ratings drew on previous experience, both within and beyond the EPPI-Centre, in assessing the quality of 'qualitative' research. The ratings used related to four aspects of research methods:

- the quality and reporting of the study's sampling methods (the sampling frame and how individuals were selected from this);
- the quality of the description of the sample (numbers, ages, sex, and socioeconomic status of participants);
- the quality of the data collection and analysis methods (reliability and validity of data collection tools and data analysis methods);
- the appropriateness of the study methods for ensuring that findings were rooted in the perspectives of the researched, and the relevance of the study to answering the review question.

The scoring system allowed reviewers to judge whether a study met the criteria completely (1.0), partially (0.5), or not at all (0). A study could score a maximum of 10 points. Appendix 1.2 contains more information about the methodological quality assessment tool.

The highest quality studies were then selected for in-depth analysis. Complete quotes from all in-depth studies were read and factors influencing women's experience of motherhood were identified from the quotes and listed by one researcher (GB). Factors were then summed across studies to determine which occurred most frequently. The three most frequently occurring factors were chosen for thematic synthesis. Overarching themes were derived from the analysis of these factors, and a 'story' of women's experiences of motherhood written for each factor. Implications for policy, practice and research were developed from the themes. A second reviewer (MW) checked the quotes, identified factors and derived themes for consistency and validity.

In the results section below, we consider first the mapping stage of the review, secondly the in-depth stage, and thirdly our more detailed analysis of a small number of studies which concentrated on a key aspect of the transition to motherhood: identity.

3. Results

3.1 Descriptive map

Figure 1 shows the flow of literature through the mapping stage of the review. Our searches located 14,326 references to potentially relevant studies, 922 of which were duplicates. This left 13,404 references for inclusion screening. Table 1 shows how many of the initial 14,326 references were found through the individual searches. Sociological Abstracts and PsycInfo were the most productive, together yielding 52% of the references.

Table 1: Source of located references before duplicate removal (N=14,326)

Source	N (%*)
Sociological Abstracts	4433 (31)
PsycInfo	3054 (21)
PubMed	2869 (20)
CINAHL	1954 (14)
ASSIA	807 (6)
IBSS	689 (5)
Website searching	222 (1)
Social Care Online	190 (1)
Anthropology Plus	91 (1)
British Library	14 (<1)
DART Europe	2 (<1)
Key Informants	1 (<1)
SSCI	0 (0)
Index to British Theses	0 (0)
TOTAL	14,326 (100)

* Note: percentages may not add up to 100 because of rounding.

We screened a random sample of 10% of the 13,404 non-duplicate references (n=1340) plus 302 provided by key contacts – a total of 1,642 - to see whether they did in fact meet the inclusion criteria. Following screening, 1,411 (86%) of the 1,642 were excluded because they did not meet one or more of the inclusion criteria. The three most common reasons for exclusion were that the focus of the study was not first-time motherhood (47% of the excluded studies); the topic was parenthood or fatherhood rather than motherhood (25%); or the reference was a discussion of the literature rather than a report of primary research (16%). This screening process left 231 reports, of which we were able to retrieve 132 in the time available; seven of the 132 were linked reports (two or more publications relating to the same study), leaving 125 studies to be included in the descriptive map (see Figure 1).

Figure 1: Flow of reports through the review's mapping process
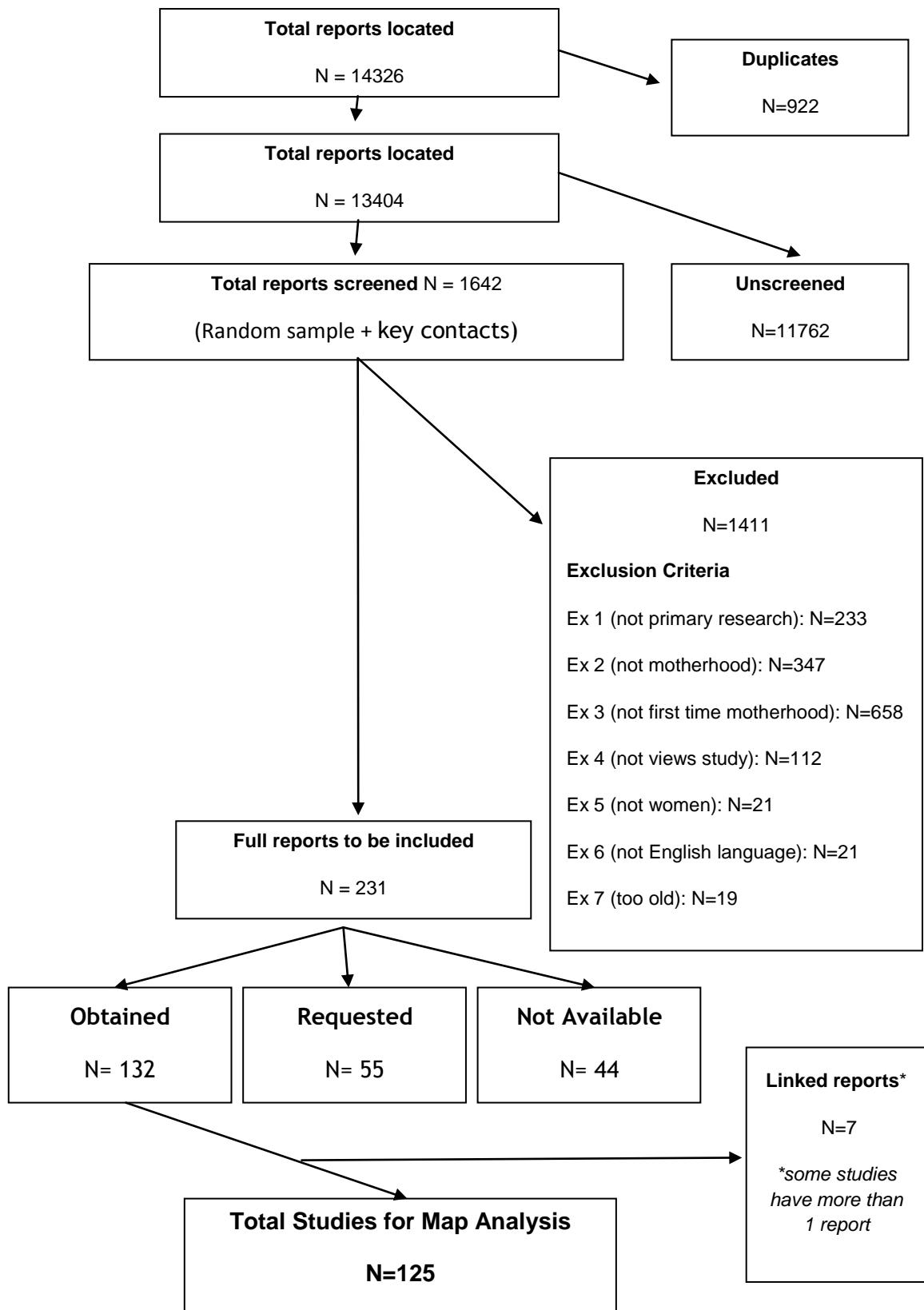
Most of the 125 studies were recent ones: as Table 2 shows: 66% were published in or since 2000. This could indicate a growing interest in the subject of motherhood transitions among researchers. It could also indicate an increased propensity for work in this area to be published, or it may have been a result of key contacts remembering and recommending more recent research. The most usual country of study was the USA, with 35% of the 125 studies, followed by the UK and Ireland with 24% and Australia with 14%. The low proportion of studies we found carried out in non-English speaking countries was likely to have been influenced by the search terms and databases we used.

Table 2: Descriptive map of studies: date of publication and country (N=125)

Date	N (%)		Country	N (%*)
1975-1989	18 (14)		Australia	18 (14)
1990-1999	25 (20)		Canada	6 (5)
2000-2009	82 (66)		Finland	3 (2)
			Israel	2 (2)
			Italy	1 (<1)
			New Zealand	1 (<1)
			Portugal	2 (2)
			South Africa	3 (2)
			Sweden	7 (6)
			Tanzania	1 (<1)
			Turkey	2 (2)
			Uganda	1 (<1)
			UK & Ireland	30 (24)
			USA	44 (35)
TOTAL	125 (100)		TOTAL	125 (100)

* Note: percentages may not add up to 100 because of rounding.

As Table 3 shows, most of the 125 studies (62%) focused on women aged between 19 and 35, though 12% reflected the policy concern with teenage motherhood. Very few reports (2%) with samples of older first-time mothers (i.e. over 36 years) were identified. Over a quarter of the studies (28%) had samples of 19 or less, and there were some large studies: 11% had samples of 500 or more women.

Table 3: Descriptive map of studies: age group and sample size (N=125)

Age group	N (%)		Sample size	N (%*)
under 19 yrs	15 (12)		1-9	17 (14)
19-35	78 (62)		10-19	17 (14)
36+	3 (2)		20-49	15 (12)
Mixed ages	28 (22)		50-99	24 (19)
Not stated	1 (1)		100-249	23 (18)
			250-499	12 (10)
			500+	14 (11)
			Not stated	3 (2)
TOTAL	125 (100)		TOTAL	125 (100)

* Note: percentages may not add up to 100 because of rounding.

Table 4 shows the main topics focused on in the 125 studies in column one, and the distribution by decade in columns 2-4.

Table 4: Descriptive map of studies: main focus of studies by decade (N=125)

Topic	All N (%)	1975 – 1989 N (%)	1990 – 1999 N (%)	2000 – 2009 N (%*)
Mental health	27 (21)	1 (5.5)	6 (24)	20 (24)
Employment/education	18 (14)	3 (17)	3 (12)	12 (15)
Teenage mothers	16 (13)	2 (11)	5 (20)	9 (11)
Identity/becoming a mother	16 (13)	3 (17)	2 (8)	11 (13.4)
Gender differences/feminist theory	8 (6)	2 (11)	1 (4)	5 (6)
Social support	7 (6)	2 (11)	0	5 (6)
Maternity care	5 (4)	0	0	5 (6)
Assisted reproductive treatment	4 (3)	0	1 (4)	3 (4)
Marital/family relationships	4 (3)	1 (5.5)	1 (4)	2 (2.4)
Older mothers	3 (2)	1 (5.5)	1 (4)	1 (1.2)
Pregnancy complications	3 (2)	0	2 (8)	1 (1.2)
Infant temperament/attachment	2 (2)	1 (5.5)	0	1 (1.2)
Single mothers	2 (2)	1 (5.5)	0	1 (1.2)
Other	10 (8)	1 (5.5)	3 (12)	6 (7.3)
TOTAL	125 (100)	18 (100)	25 (100)	82 (100)

* Note: percentages may not add up to 100 because of rounding.

Women's mental health was the most popular main topic; almost one fifth of the studies had this as their key focus. The next three most common main topics were employment/education; teenage mothers; and identity/becoming a mother. The focus on mental health appeared to increase over time. Teenage motherhood was most prevalent as a topic focus in the 1990s. Most of the studies of maternity care and assisted reproduction were carried out in the 2000s.

A range of research designs were used in the located studies over the thirty-four year period, illustrated below in Table 5.

Table 5: Descriptive map of studies: research designs (N=125)

Research Methods	All N (%)	1975 – 1989 N (%)	1990 – 1999 N (%)	2000 – 2009 N (%)
Survey	53 (42)	11 (61)	11 (44)	31 (38)
Qualitative design	46 (37)	2 (11)	7 (28)	37 (45)
Mixed methods	23 (18)	2 (11)	7 (28)	14 (17)
Case control	2 (2)	2 (11)	0 (0)	0 (0)
Not stated	1 (1)	1 (6)	0 (0)	0 (0)
Total	125 (100)	18 (100)	25 (100)	82 (100)

The included studies predominantly used either surveys (42%) or qualitative designs (37%). The number of studies using surveys decreased proportionately across decades from 61% to 38%, as the number of qualitative study designs increased from 11% to 45%. A total of 23 studies described using mixed methods (for example, survey and qualitative design); this approach appeared to peak in the 1990s.

**Table 6**: Descriptive map of studies: timing of data collection (N=125)

Timing of data collection	All N (%)	1975 – 1989 N (%)	1990 – 1999 N (%)	2000 – 2009 N (%)
Pregnancy	4 (3)	0 (0)	1 (4)	3 (4)
Postnatal period	60 (48)	7 (39)	8 (32)	45 (55)
Pregnancy and postnatal period	61 (49)	11 (61)	16 (64)	34 (41)
Total	125 (100)	18 (100)	25 (100)	82 (100)

Table 6 shows shifts in the timing of data collection, with the practice of collecting data from women in both pregnancy and postnatally decreasing in the last decade. Most recent studies relied solely on postnatal data collection.

3.2 In-depth review

Our Advisory Group recommended a focus on UK women's experiences. Figure 2 shows the flow of studies through this in-depth stage of the review.

Figure 2: Flow of reports through the in-depth review
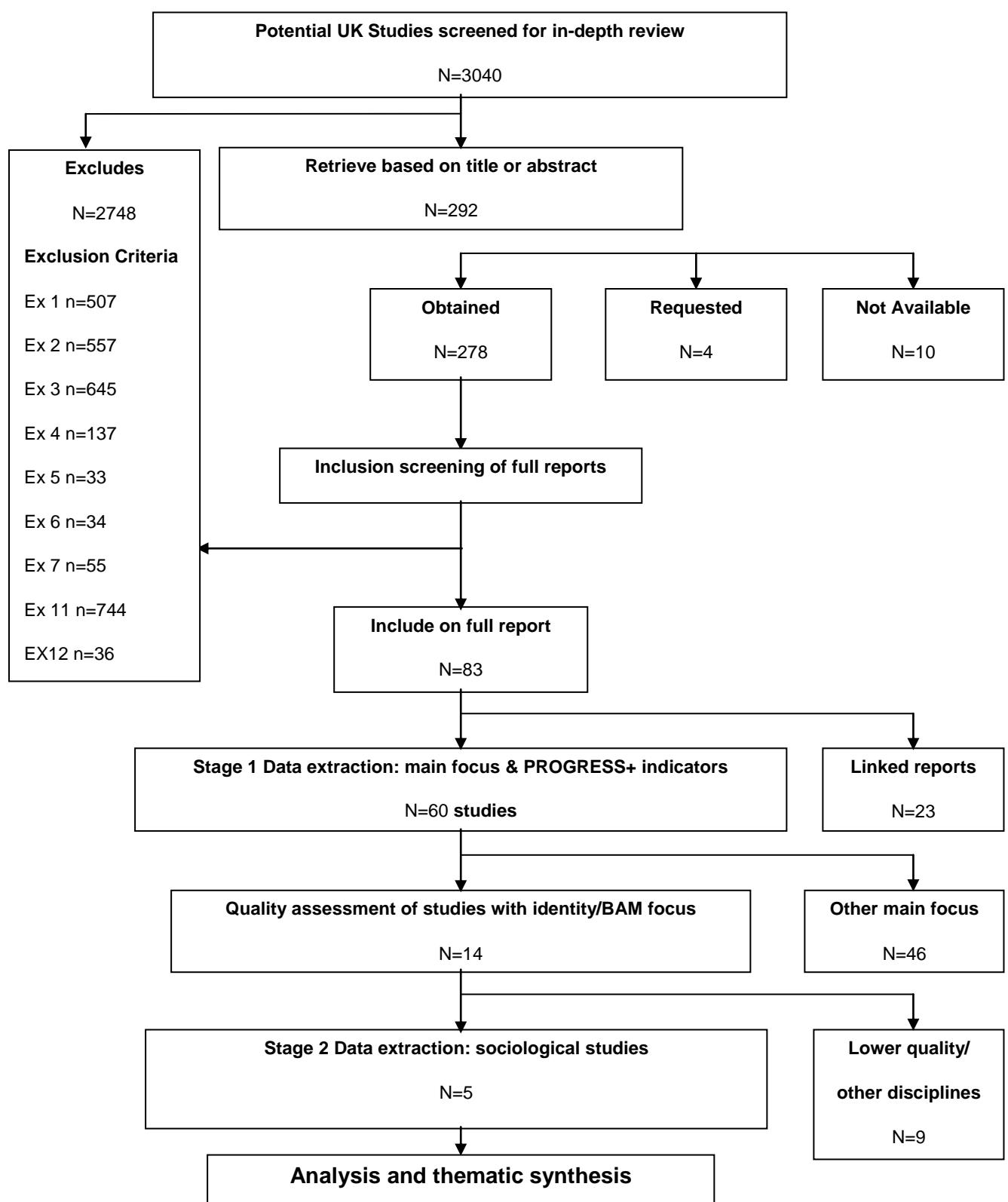
Our search of the whole reference database for studies conducted in the UK located 3,040 citations for inclusion screening. Of these, 292 (10%) appeared potentially relevant based on the title and/or abstract and full reports were retrieved and screened again for inclusion. As before, the main reasons for exclusion were because the study focus was: not first-time motherhood (27% of excluded studies); not motherhood specifically (21%); or not primary research (19%). We retrieved full reports of 278 (95%) of the 292 potentially relevant references in the time available and 83 of these met the inclusion criteria. These 83 reports described results from 60 studies (i.e. some studies published more than one report of findings). The next stage of our analysis was conducted on these 60 studies.

Table 7: UK studies of transition to motherhood: main focus by decade (N=60)

Topic	1975-1989 N (%)	1990-1999 N (%)	2000-2009 N (%)
Identity/becoming a mother	2 (50)	2 (18)	10 (18)
Mental health	1 (25)	4 (27)	9 (18)
Maternity care	0	1 (9)	7 (20)
Teenage mothers	0	1 (9)	8 (18)
Employment/education	0	0	5 (11)
Older mothers	1 (25)	2 (18)	0
Social support	0	0	2 (4)
Gender/feminist theory	0	0	2 (4)
Other	0	1 (9)	2 (2)
Total	4 (100)	11 (100)	45 (100)

Table 7 shows similar data to Table 4, but for the 60 UK studies included in the in-depth review. The three most popular main topics were identity, mental health and maternity care, which together accounted for over half the 60 studies. Because most (75%) of the 60 studies were published since 2000, it is difficult to say anything definite about trends. However, maternity care appears to be a topic of increasing interest to UK researchers. As in the descriptive map, the focus on teenage motherhood and education/employment became more popular in the UK from 1990 on, reflecting heightening policy concern.

One of the objectives of the review was to describe the socio-demographic profiles of the samples of women studied in the transition to motherhood research literature. If, for example, most of the women whose views have been studied are white and middle class, then conclusions drawn about the nature of the transition and the social and medical factors shaping it are likely to be skewed in the direction of over-representing the perspectives of this social group. In order to assess the extent to which this kind of bias is present, it is necessary for study authors to publish the relevant information. However as Table 8 shows, many of the 60 UK studies are deficient in this respect.

Table 8: UK studies: socio-demographic data reporting by decade (N=60)

Data	1975-1989 (N=4) Stated/Not stated	1990-1999 (N=11) Stated/Not stated	2000-2009 (N=45) Stated/Not stated
Age	2/2	11/0	40/5
Place of residence	4/0	8/3	32/13
Partnership status	2/2	8/3	21/24
Ethnicity	2/2	4/7	25/20
Education	0/4	4/7	15/30
Occupational class	1/3	3/8	21/24

Age and place of residence were most likely to be described, but even here seven of the 60 studies (12%) did not give the women's ages, and 16 (27%) of the studies did not provide information on place of residence. Just under half of the studies - 29 (48%) - omitted provision of information on partnership status and ethnicity. Most crucially, 41 of the studies (68%) gave no or unclear information about the women's educational levels and 35 (58%) on occupational class. There is a trend towards more reporting of occupational and ethnicity data in the most recent decade of studies.

Frustratingly, it was clear in a number of the studies where sample criteria were 'not stated' that measurement of social backgrounds had been undertaken; for example, sub-group analysis was said to have been done using such criteria, but there was no explanation of sample background in the text. In other studies, vague descriptions of social backgrounds were provided. For instance, in one study, participants were described as coming from 'a variety of occupations, social classes and educational levels'; other studies recorded the numbers of participants who were employed full-or part-time, but gave no indication of type of occupation.

Where details were given on the social background of participants, we attempted to synthesize the information across studies to understand the kinds of social groups on which conclusions about the transition to motherhood are based. This was difficult to do because of the varied ways in which these social criteria were described. Table 9 contains the data that were available for synthesis.

Table 9: UK studies: reporting of socio-demographic profiles of participants by decade

	1975-1989 % (n/N)	1990-1999 % (n/N)	2000-2009 % (n/N)
Partnership status: (N=30 studies) Living with partner	72% (207/288)	93% (1458/1568)	74% (3605/4869)
Education: (N=19 studies) Educated beyond 16	(0/0)	39% (546/1384)	58% (1424/2449)
Occupational class: (N=14 studies) Social class I/II/IIINM	93% (51/55)	66% (404/613)	51% (1473/2893)
Ethnicity: (N=31 studies) White	100% (288/288)	93% (827/894)	87% (22843/26373)

Thirty (50%) of the 60 studies gave usable information about women's partnership status, 19 (32%) about their education, 14 (23%) about their occupation and 31 (52%) about their ethnicity. Over the course of the three decades, those participants for whom information was provided, who took part in UK research about becoming a mother, were predominantly white, cohabiting with a partner and middle class. Over time, a greater proportion of the women taking part in the research remained in education after age 16; as Table 10 shows, this reflects national statistics for women in post-compulsory education. Similarly in terms of national trends, those taking part in the research were from more diverse backgrounds in the more recent research, with a greater proportion of minority ethnic and working class women.

Table 10: National v. UK studies data: comparison of social class and education by decade

	1975-1989	1990-1999	2000-2009
Social class of first-time mothers: I/II/IIINM			
UK national data[§]	43%	52%	59%
UK BAM studies data	93%	66%	51%
Participation in post-compulsory education			
National data for women (NOT first-time mothers)*	34%	59%	64%
UK BAM studies data	No data	39%	58%

[§]Office for National Statistics (2010).
* Department for Children Schools & Families (2007).

The 60 UK studies were examined in more detail for their methods. Table 11 shows the type of data collection techniques they used by decade.

Table 11: UK studies: data collection methods (N=60)

	All N (%)	1975 – 1989 N (%)	1990 – 1999 N (%)	2000 – 2009 N (%)
Open-ended questioning only	37 (62)	2 (50)	5 (45)	30 (67)
Closed questions only	13 (22)	0 (0)	3 (27)	10 (22)
Open-ended and closed questions	9 (15)	1 (25)	3 (27)	5 (11)
Not described	1 (2)	1 (25)	0 (0)	0 (0)
Total	60 (100)	4 (100)	11 (100)	45 (100)

Open-ended data collection methods were most often used in these studies, with nearly two-thirds of studies using only this method. Fewer studies used a combination of open and closed questions (15% overall).

3.2.1 UK studies focussed on maternal identity in the transition to motherhood

On the basis of guidance from the Advisory Group, and our own assessment of the literature, we decided to concentrate in the next stage of the in-depth review on those studies whose main focus was specifically the issue of women's identity in the transition to motherhood. This focus most closely captured the concept of

'becoming a mother' specified in the protocol for the review. There were 14 such studies. Table 12 shows the main disciplines of these studies and the results of the quality ratings made according to the criteria outlined in the methods section above.

Table 12: Main discipline and quality rating of studies with Identity focus (N=14)

Psychology	Quality Rating	Sociology	Quality Rating	Social Psychology	Quality Rating	Health Promotion	Quality Rating
Flakowicz (2007)	2.0	Bailey (1999)	7.0	Baker (1989)	7.0	Marshall (2007)	8.0
Scott & Hill (2001)	5.5	Earle (2000)	9.0	Darvill et al (2008)	8.5		
Smith (1994)	6.5	Miller (2005)	8.5	Richards et al (2007)	7.0		
Wheatley (2001)	6.0	Oakley (1980)	9.0	Urwin (2007)	7.5		
		Thomson & Kehily (2008)	9.0				
Average Quality Rating	**5.0**		**8.5**		**7.5**		**8.0**

Full details of the quality ratings and the aims, methods and participants of the 14 studies are given in Appendix 2.

The 14 studies utilised a range of methodologies. For data collection all but one used semi-structured interviews, but half used additional methods – observation, diary keeping, photography and/or questionnaires to supplement this technique. The sample sizes ranged from one to 153 participants. The majority of studies were carried out in a range of urban and suburban settings. Despite differences in methods, nearly all the 14 studies had very clear aims. Studies focused on the formation of maternal self-identity related to various factors such as embodiment (Bailey 1999); relationship to other social groups (Baker 1989); support needs (Darvill et al. 2008); antenatal care (Earle 2000); internal and external adjustment (Flakowicz 2007); breastfeeding (Marshall 2007); contemporary societal framing of motherhood (Miller 2005); childbirth and its effects (Oakley 1980); adolescence (Richards et al. 2007); parenting beliefs (Scott and Hill 2001; Wheatley 2001); reflexivity and the relational self (Smith 1994); generational differences in motherhood (Thomson and Kehily 2008); and differences across culture and ethnicity (Urwin 2007).

3.2.2 UK sociological studies on maternal identity

As described in the aims and methods sections (see pages 2-4), we decided to take a more detailed look at the five sociological studies (Bailey 1999; Earle 2000; Oakley 1980; Miller 2005; Thomson and Kehily 2008) on two grounds: firstly, the focus of our review was on societal-level factors influencing women's experience of the transition to motherhood; and secondly, the sociological studies were of higher overall quality methodologically than the others (8.5, compared to 5.0 for the psychology, 7.5 for the social psychology and 8.0 for the health promotion studies). Examining the five sociological studies in more depth was therefore a strategy

which would enable us to derive conclusions from the most rigorously conducted research with a clear focus on social influences. The five studies included in the in-depth review are summarised below:

Bailey (1999) aimed to examine the ways in which women in Bristol constructed narratives to establish their new identity as a mother within contemporary social contexts. Using semi-structured interviews, a total of 30 white middle class women were asked in their third trimester of pregnancy (27-40 weeks) to describe their experiences in becoming a mother and to speculate on what impact they expected this to have on their lives and careers. Bailey suggests that women experienced a refraction of their personality during pregnancy, and changes which clustered along six themes: self-identity, the body, their working self; practices of self; relational sense of self; and the experience of space and time. Bailey suggests that motherhood is not a fundamental alteration of women's sense of self, but rather refraction through the prism of pregnancy.

Earle (2000) explored the relationship between antenatal care and the maintenance of a woman's self-identity during pregnancy. Repeated in-depth interviews were conducted with 19 women of unstated ethnicity in Birmingham in the first trimester (6-14 weeks) and third trimester (27-40 weeks) of pregnancy, and postnatally between six and 14 weeks. Participants ranged in age from 16 to 30 years. Their socioeconomic status was evenly distributed across occupational classes. Women were asked to describe, in their own way, their experiences of antenatal care. Findings indicated that the relationship between the midwife and woman is key, both for fostering the woman's sense of uniqueness and her similarity to others. It is suggested that both are essential to the maintenance of antenatal self-identity.

The aim of the study by **Miller (2005)** was to explore the ways in which women's narratives of the transition to motherhood are dependent on the societal framing of contemporary motherhood. A sample of 17 women of unstated ethnicity, who were of mostly semi-skilled, skilled and professional occupations, were interviewed using semi-structured interview schedules Interviews were conducted antenatally at 7-8 months and postnatally at 6-8 weeks and 8-9 months. Women were asked about expectations, birth, mothering experiences, information-seeking, perceptions of self and others, and work intentions. The findings suggested a disjunction between women's expectations and experiences, and that women used many different methods to construct what they perceived to be acceptable accounts of new motherhood. Women seemed to build upon these accounts to eventually express their maternal identity in more authoritative and challenging ways.

Oakley (1980) aimed to show how the first experience of childbirth affects women as a major change in their life and to discover the contribution of medical maternity care and social factors to women's experiences of becoming mothers. Interviews were conducted with women at 14 and 34 weeks of pregnancy and at five and 20 weeks postnatally. A total of 55 women of British, Irish or North American origin, between the ages of 18 and 31 years, white, and mostly from managerial and skilled non-manual classes were interviewed. Women were asked to sum up their experience of becoming a mother, in their own words. The study noted that pregnancy and childbirth has moved from being a natural process to one of medicalised control over 'illness', and that the medical dangers of pregnancy were emphasised over psychological or social ones.

Thomson and Kehily (2008) examined how women negotiate the identity and experience of motherhood over generations and time. Using interviews facilitated by visual prompts and photographs, 62 mostly white women from all classes in Milton Keynes aged between 15 and 48 years were asked in pregnancy to "tell the stories of their life and pregnancy", and discuss the resources that they drew upon in preparing for motherhood. The researchers found that women who planned and wanted their baby characterized the pregnancy in terms of a synchronization of individual, couple and peer biographies. The women's views were mediated most powerfully by their age at the time of pregnancy. Some women considered their own mothers' experiences out of date, but others understood that their own stories were an extension of their own mothers in relation to thwarted careers, or for repairing isolation or hardship endured by their mothers. During pregnancy, women described fears or anticipation around changes in relationships with their partners. Twelve of the sample were interviewed postnatally, these mothers cited more nuanced changes in temporal, spatial and emotional aspects of their lives. They described this time as one of gains and losses, for example in the intensification of, and pleasure with, the rhythms of daily life, but with a demanding baby. The authors concluded that becoming a mother in contemporary society is still a time of personal change which ties women to the past, the future and to their significant others. Yet what it means to be a mother is changing and fragmenting, concordant with women's increased participation in work and education.

The synthesis of 183 women's views extracted from these five sociological 'identity' studies found a range of key social and medical influences that women cited regarding the transition to motherhood. These influences fell into a range of broad themes:

- Information needs
- Mental and emotional status
- Physical status
- Relationship with partner
- Relationship with support networks
- Caring for a baby
- Paid employment
- Experience of maternity care

Key influences from the first six of these themes are listed in Table 13 below. For the two themes that women talked about the most (paid employment and the transition to motherhood; and the experiences of maternity care), descriptive sections follow explaining the related influences.

Table 13: In-depth review (N=5): Synthesis of women's views about the influences on becoming a mother

Information needs – pregnancy, birth, parenting • A need for knowledge in order to have some control over the unknown of labour and motherhood; • Prioritising of expert information and advice in pregnancy and during labour/birth – from health professionals, classes and books; • View that provision of information about birth had been insufficient and not realistic enough; • Postnatal tension between natural mothering 'intuition' and professional information. Increased reliance on own instinct, and advice from friends, as baby becomes older; • Distrust of own mother's advice (as outdated) for some vs. relying heavily on maternal experience for others. Women in more recent studies were more likely to question advice from their own mothers, and to say they gained more information from classes and professionals; they were generally more willing to question the information given to them.
Mental and emotional status • Anxiety about labour and birth, especially pain, lack of control and everything being ok with baby; • Shock as an emotional (as well as physical) response to childbirth; • Postnatal distress on wards; • Postnatal lack of coping – stress, worry, feeling overwhelmed, and comparisons with other mothers – 'I'm not normal'; • Increase in identification with own femininity and with other women; • Link between prior maternal identification and coping with motherhood postnatally; • Lack of freedom; loss of pre-baby independence; lack of control over own life – expressed by some as bewilderment; others as depression; • Lack of self-confidence/self-worth as a precursor of postnatal difficulties; but others viewing motherhood as a means of gaining self-worth. Many of the themes related to mental and emotional status were similar over the three decades, especially those relating to fear of pain in childbirth and feelings of being overwhelmed postnatally. There appeared to be greater anxiety during pregnancy decade about complications at the birth in the latest decade.
Physical status • Many women viewed their pregnant self as clumsy, fat, and sexually unattractive. Some felt invaded by the growing baby and resentful of lifestyle changes that had to be made to accommodate the pregnancy (diet, drinking, smoking, clothes); • For some women, their changing pregnant body was liberating (from cultural expectations of body shape/size) and empowering (proving their fertility/femininity, providing them extra respect and space from others);

- Their changing body shape confirmed the reality of their pregnancies and acted as a physical marker for the changes they were experiencing emotionally, including a loss of individuality;

- Women were often impressed by their physical ability to give birth; some felt let down by their body when their birth had not met their expectations;

- Initially post birth, women were relatively accepting of their changed bodies, but with time they felt pressure to conform to what they perceived as 'normal', especially in terms of weight;

- The most common physical attribute mentioned in the postnatal period was exhaustion;

- Breastfeeding, for many, asexualised their breasts.

Women's discussions about physical status over the three decades remained fairly consistent, with both positive and negative comments on the different aspects of this topic.

Relationship with partner

- Pregnancy was seen to strengthen and solidify relationships with partners;

- Women expressed a range of views about whether it was desirable to have their partner present at the birth. They felt there was an expectation that partners would be there;

- The demands of having a young baby were more divisive in partnerships than some women expected;

- The addition of a baby changed many partner relationships towards more traditional gender roles (division of labour; paid employment; interests), something that was not always anticipated and/or welcomed by the women;

- Some women said they no longer felt like sexual beings after they became mothers.

There was a great degree of continuity in the views expressed about partner relationships amongst the included studies, although the expectation of partner's attendance at the birth was only mentioned in the last decade.

Relationship with support network

- Women said that friends and colleagues treat you differently once pregnant or a mother: treated more as a real person/ told more about their lives;

- Motherhood led to a sense of further embedding within the extended family (e.g. with mothers/sisters);

- Becoming a mother meant entering a new community of women who had also been through this experience. Some said they had become 'part of the club that we didn't know existed', realising the centrality of motherhood in others;

- Many women sought support and advice from other mothers with new babies, especially when support from their own mother was absent;

- Some women, however, became socially isolated after having a baby. Women found that becoming a mother was the end of friendships with non-mothers. Others felt they did not easily fit into circles of mothers.

Over time, there was more discussion by women of their relationships beyond family, especially in terms of use of groups of other mothers as support.

> **Caring for a baby**
>
> - Women blamed themselves for not being able to interpret their baby's behaviour and stop them from crying. They expressed confusion and disappointment that this early mothering was not instinctive;
>
> - Some women saw young babies as being uncontrollable. The baby's temperament influenced maternal satisfaction;
>
> - There were concerns about whether they were good mothers, asking themselves whether they had bonded sufficiently? Why were others finding it easier?;
>
> - Some women described their relationship with their baby as extraordinary, enjoying the attachment and dependent relationship; others found such responsibility restrictive or overwhelming;
>
> - The experience being a mother was characterised as a lack of independence and women described their lives as fragmented, where they were unable get things done. For many this was a total transformation from the pre-motherhood self.
>
> There was great continuity over the three decades in women's views on issues relating to their identity and caring for their baby.

3.2.3 Thematic synthesis 1: Women's views about paid employment and becoming a mother

The participants in the five included studies identified a range of aspects relating to the influence of paid employment on becoming a mother. These are described in detail in the following section.

Shifting ground beneath women's feet…

Women comment that their relationship to others at work, their role at work and their employer's response to them all changed during pregnancy. This continued after birth and the return to work. For example, in pregnancy, women describe an increased awareness of co-workers as parents, while after they return to work they describe a need to rely on others more and work as part of a team, both at home and in paid employment. The relationship between home and employment also shifts during pregnancy and postnatally. There is a general shift in prioritising motherhood over paid work. This shows in the ways women talk about work; their descriptions exemplify the need for there to be a new accommodation between employment and domestic life.

Women also describe a changing sense of connection with their communities (in paid employment or at home). Becoming a mother encourages a stronger connection to the wider community within both those women who work at home and those who return to paid employment.

Women clearly identify their needs for paid employment after becoming a mother

Women who have given birth and are considering their return to paid employment clearly articulate their needs. They recognise that they have changed (e.g. in wanting more independence and flexibility in paid employment), and that this will impact the choices they make about employment outside the home. They consider aspects of their organisation's ethos, community support, partner support and needing a change to their old routines when deciding how to fit paid employment with motherhood.

Women negotiate new terrain…sometimes in hostile territory and without a map

Women's ability to successfully arrange maternity benefits, working conditions and the return to work depends, in part, on workplace flexibility and ethos. The procurement of childcare was also considered a new and difficult challenge.

Women describe a gap between the societal valuing of motherhood and their own belief in the value of their contribution to society in raising a child

Women describe knowing that raising a child is of value, to themselves and to society, but many note that society does not appreciate this value. Individual and family needs, financial rewards and job prospects shape the kinds of choices women make about paid employment and motherhood.

Women identify a 'temporal shift' when negotiating the transition from paid employment to being a mother

In several studies, women described a change in their perception of time, and their relationship to it, once they stepped back from paid employment to focus on motherhood. For some women it was implied that this was a welcome change ('an oasis', 'take life as it comes'), while others saw themselves biding time ('bits of me are lying fallow', 'living through it…existing through it'). Women seemed to perceive time differently from the way they understood it in the working world ('more connected to the world', 'same person in a different country').

Change over time

Most themes related to paid employment appeared consistently over the past thirty years: views that informed each theme could be found in studies from each decade. For example, in studies from the 1980s to 2009, women clearly identified their needs in relation to paid employment after becoming a mother. Women from studies across the thirty-year time span also described an awareness of time changing for them as they stepped back from paid employment into the rhythms of home work and motherhood. However, some themes were most strongly identified within a particular decade. For instance, women's description of noting a gap between societal valuing of motherhood and their own belief in its value to society was identified by Oakley (1980). However, women who described a changing sense of connection with their work and local communities were noted in studies only from the past two decades. Additionally, women in these later studies discussed the tension between their established careers and maternal identity. Similarly, only studies from the past two decades show women describing challenges to negotiating childcare and navigating workplace conditions and maternity benefits.

3.2.4 Thematic synthesis 2: Women's views about the quality of care in the transition to motherhood

Women participating in the included studies also identified a range of aspects relating to the influence of quality of health care on becoming a mother. These are described in detail below.

Shifting ground beneath women's feet…

Women across the studies described a loss of personal identity resulting from objectified care by health care providers. They felt that they lost a sense of accomplishment during birth when medical intervention was determined to be necessary, and that the naturalness of birth was lost. Some women also felt they lost out on choice when they were not provided with all of the options for care or when they felt forced into choosing a particular type of care. However they did seem to gain confidence in themselves and their ability to care for their babies as time passed.

Women clearly identify their needs and choices for safe, empathetic, understandable care

Women want to give birth on their own terms, but this focus is often muted as the pregnancy progresses to birth and the postnatal period. Professional 'expertise' imposes a different set of criteria.

Across the studies, women were clear about their needs in their relationships with health care providers. An open relationship was seen as important, in which health care providers gave emotional and physical support to the woman and her family, and showed understanding of what women were going through. For some women, 'unity' of care (i.e. consistent high quality care) was seen as more important than having the same carer, although others valued a relationship where the health care professional knew the women and there was a sense of trust. When women felt they were being processed through care in a 'factory line' and not seen as a person, they felt it difficult to have a relationship with their health care professional. Providing simple, clear information in an unpatronising manner was valued by women, as was giving feedback on the growth and development of the baby throughout the pregnancy.

Women were very clear that they did not appreciate aggressive body language, or a lack of compassion for their discomfort and pain. They complained about depersonalisation – being treated as objects or ignored as parents. Some vulnerable women noted that their health care professional could be 'rude' when talking to them, and others cited confusion and distress when health care professionals disagreed about a woman's care in her presence.

Women did note that their relationship with their health care professional changed postnatally, as they gained more knowledge and practical experience of motherhood. They valued their health care professional's care early in the postnatal period but this became less important later.

Women negotiate new terrain…sometimes in hostile territory and without a map

Navigating the childbearing year could be a challenging experience for women when they did not understand aspects of the process or system of maternity care. This was reflected in the way in which they described the quality of care they received from health care professionals. For example, they could be confused over the health care professional's role when it was not clearly explained to them using language or information they understood. Poor communication of medical conditions without checking understanding did little to allay women's fears. In hospital, some women described being more fearful of pain caused by health care professionals than by labour itself, while others recognised that if they wanted to know something they would have to ask, because the health care professional was not going to provide the information.

Women described cursory initial contact with health care professionals in early labour and when they anticipated induction, especially if it was rescheduled. They also described a sense of abandonment in hospital postnatally by unavailable health care professionals. Once at home, rather than negotiating the frequency or length of the visits provided by health care professionals, women could feel coerced into agreeing.   Postnatally, they initially value but eventually grow to question the input of their health care professionals, particularly as their own expertise and confidence in themselves as a mother increases.

Women's expectations did not always fit what really happened

Women's expectations during the childbearing year often differed from reality. In terms of expectations regarding health care professionals, women describe 'shock' at how infrequently they saw their health care professional in the antenatal period. They expected that the relationship developed at this time to be an important part of their preparation for birth and beyond, but their expectation of this were not always met. Expected information from their health care professional, for example about their planned place of birth, did not always emerge. Women did not anticipate, and yet experienced, conflict with staff in hospital during their baby's birth and in the early postnatal period. Information provided postnatally by health care professionals was less than expected.

Additionally, unrelated to care from health care professionals, many women had a very different birth experience from the one they had anticipated. Despite feeling prepared for birth before the event, afterward they suggested that their ability to cope was less than they had expected. Many described being ill-prepared for the sheer power of birth itself. The antenatal preparation and postnatal support they received was not sufficient to negotiate this.

Women describe a gap between their values/needs and those of others

Women's needs for advocacy and support are not always recognised. Women who were more deferential toward medical care were more likely to be anxious before and during birth, and experience more medical intervention, but they were also more likely to be more satisfied with their health care. For other women, there sometimes appeared to be a wide gap between their values or needs and those of others. This could result in simple mismatches in communication, for example where health care professionals congratulated women after a high medical intervention delivery and the women did not think this appropriate since they 'did

nothing'. In other situations, health care professionals could state quite clearly that 'we need to deliver this baby', indicating that women have less input into the situation. This happens more often with increasing medical intervention. Even in one situation where the woman indicated that the care was appreciated, the health care professional appeared to be in control of the situation, stating 'we're not going to start without dad', rather than asking the woman for her preference about whether they should wait until the father arrived. This subtle 'taking over' of the birth experience could leave women feeling a lack of ownership over their baby's birth: delivery was 'like having a tooth out…you don't actually do it yourself: the dentist does it'.

Postnatally, some women felt that they were being inappropriately labelled as depressed rather than just being given the support they felt was needed. Others felt that they needed a blood transfusion to help them, yet this was not recognised or acknowledged by the health care professional. On occasions when there were not enough staff to care for both woman and baby, some women described the baby's needs being prioritised at the expense of their own. The result of each of these situations is for women's needs to go unheard because of overriding medical priorities.

Change over time

Women's views about the quality of care they received from health care providers appear to have remained fairly consistent across thirty years. What does appear different, based on studies in the past ten years, is that women describe more clearly that they have particular needs in relationships with their health care providers and the system in which care takes place. For example, women were clear about wanting an open, individualised, trusting relationship with their midwife and that this was an important part of their relationship that may not always be met, due to infrequent visits, conflict with hospital staff or inadequate antenatal preparation or postnatal help from health care providers.

4. Discussion

Our systematic review suggests that a wide body of international research has been undertaken addressing women's views of their transition to motherhood. The searches we used located more than 14,000 references. Screening a random sample of 10% of these yielded a considerable range and variety of 125 studies whose focus was on primary research conducted since 1975 and concerned with women's views of the transition to motherhood. Many studies were excluded because they were not descriptions of first time motherhood. Although we searched as specifically as possible to get only this set of studies, articles do not routinely reference 'first time motherhood' (either as an exact phrase or as a concept) as a term in their titles, abstracts or catalogue descriptors, which led to time consuming retrieval and screening of irrelevant references.

The most interesting findings from our 'map' of the 125 international studies on the transition to motherhood are probably the wide distribution of countries (14 in all), the substantial variation in sample size (from 1 to 23,000), and the range of topics on which the studies focussed. Women's mental health during the transition to motherhood was the most popular topic, followed by employment/education, teenage motherhood and identity. There were some changes of focus during the three decades of research we looked at, with mental health increasing in importance, and teenage motherhood being a particular focus during the 1990s. Maternity care did not feature much as a main focus: only 5 of the 125 studies concentrated on this. There were some shifts in study design towards an increasing use of qualitative designs and less reliance on survey methodology. A notable feature of sample size was that over a quarter (28%) of the studies had samples of 19 or fewer women.

Most studies in the map of international studies contained samples of women of diverse ages; very few looked at older mothers in particular. This is of interest, given the increasing number of first time older mothers and their greater involvement with medical care during pregnancy due to pre-existing medical conditions or fertility issues.

In the first in-depth stage of the review we examined more closely 60 studies carried out in the UK. These 60 studies focused mainly on identity and the transition to motherhood (23% of the 60 studies), and women's mental health (23%), followed by teenage motherhood (15%) and maternity care (13%). In drawing conclusions from this body of research about the main influences on the transition to motherhood, it is important to know how the evidence provided by the studies might compare with the evidence from a nationally representative sample of women having their first babies. This was very problematic, however, since many researchers simply did not provide much socio-demographic information about the women who took part. For example, 41 of the 60 studies (68%) gave no or unclear data on educational level, 35 (58%) on social class and 29 (48%) on ethnicity. Even age was not reported in 7 (12%) of the studies. Where data were available, it was clear that conclusions about experiences of first-time motherhood have been drawn mainly from white, middle class women who are living with partners: this is hardly representative of the national picture across the three decades. As the UK population becomes more diverse, and as this diversity remains persistently linked with patterns of social disadvantage (Dunnell, 2008), the relative homogeneity of research samples becomes more problematic. Small sample sizes and unrepresentative samples are findings in other systematic reviews of maternity

care experiences and views (Dowswell et al., 2001). In the most recent decade of UK maternity research we looked at, there is an encouraging sign that the focus may be beginning to swing away from middle class women.

With respect to non-reporting of socio-demographic data and the reliance on middle class samples, the studies included in our review are not unusual; they follow a general pattern. As the art and science of systematic reviewing has grown in scale and sophistication, poor reporting and a non-inclusive approach to sampling have been increasingly highlighted as weaknesses in the evidence base, both for quantitative and experimental research and for qualitative studies (Lorenc et al., 2008; Oakley et al., 1998). Practice does seem to be improving, however, and the more recent studies in our review were more likely to report details of samples and to be aware of the dangers of using a non-inclusive approach to sampling.

The next stage of our review involved a methodological quality assessment of those UK studies which focussed on the issue of identity in the transition to motherhood. The quality assessment incorporated criteria relating to: the sampling frame; sample description; the reliability and validity of data collection tools and data analysis methods; and the appropriateness of the study methods for rooting findings in the perspectives of those researched. The average score of the 14 identity studies was 7.2 out of a possible 10. The five sociological studies had the highest quality overall, and were most focussed on societal level influences on the process of becoming a mother; for these reasons we took a closer look at the themes that emerged from the women's accounts of becoming a mother in these studies.

The final stage of the review was to synthesise the social and medical influences related to becoming a mother, as identified by women. In relation to the key themes of paid employment and views and experiences of maternity health care, there was often a discrepancy between expectation and reality, and between the perspectives of the women and their health care providers. These findings are mirrored in other literature reviews (see, for example, Arendell, 2000; Atkinson, 2006; Nyström and Öhrling, 2003). Concepts of, and narratives about, time in relation to childbirth feature in other accounts of differences between the perspectives of mothers and health care providers (McCourt, 2009). In addition, there seems to be a temporal shift for women as they move from the regimentation of the working world to the more fluid rhythms of life awaiting, and with, children.

Women have very clear ideas about their needs and choices in paid employment, and this is more evident when planning a return to work. Women consider their return to work in connection to the wider community in which they live, including their support network of partners and family. The ethos of the organisations they choose to work for – in effect, those that recognise women's need to balance home and career and support and facilitate mothers in paid employment – is an important influence on whether women choose to return to paid employment.

Women also have clear ideas initially about what they want during labour and birth, but these are often muted either by the situation, or by experts playing the 'safety' card, or by the power of the experience itself. Further, women described being 'lost' in the field of medical care, technical language, and experts' priorities throughout the childbearing year. This begins in pregnancy, peaks in childbirth and fades during the postnatal period as women locate themselves in their new role as

mothers. This seems to lead to conflict between women and their health care providers, who, although concerned with providing the best possible care for women, are perhaps not listening as carefully as they could to women's ideas, needs and preferences.

The aims of our review included examining the balance between social and medical influences on the process of becoming a mother and the extent to which this may have changed since the 1970s. Our capacity to do this was limited by the evidence base and by the time we had available to carry out this review. Despite this, some consistent views of women across thirty years have emerged about their experiences of work, health care and motherhood. Studies in recent years have elicited more specific detail about women's views and expectations related to the kind of care they expect from their health care providers.

We hypothesised that recent research on the transition to motherhood would continue to identify factors relating to health care practices, social support, employment and the domestic division of labour as important influences on women's experiences of becoming mothers. This assumption was borne out – with a striking continuity of these social and medical factors over time.

We additionally hypothesized that recent research would embrace new factors, and reflect the enhanced importance of others. To some extent, this too happened, although differences were found in terms of women's sources of health information: in more recent research, women placed greater importance on organised activities (e.g. groups, classes) for pregnant women and new mothers than in earlier studies. It was suggested that women might now have less opportunity to be with new mothers and small babies (i.e. 'mothering apprenticeships'), which makes such organised activities necessary. There remained, however, a dominant reliance on information provided by health professionals, rather than on that found through other forums or individuals.

Delay in childbearing age was evident in aspects of women's views: for example, more predominance of discussions regarding fertility; the conflict between established careers and a new maternal identity; anxieties about birth without complications and the baby's health, given the increased risks associated with higher maternal age.

There was an increased use of Caesarean sections in more recent studies. Despite, or perhaps because of, this rise in surgical birth, Caesareans were not considered necessarily more influential on the process of becoming a mother than other interventions (for example, instrumental deliveries). Instead, it was the act of health care professionals' interventions in what women had expected to be a normal self-directed process that had an impact on their transition to motherhood. This impact was noted in studies across all decades.

4.1 Strengths and limitations of the review

A systematic review of transition to motherhood research is likely to give a fairer picture of the overall universe of research than more selective approaches. Our systematic review used established methods to generate a picture of the kinds of published research that have been done over the last three decades, of the methods that this research has used, the profiles of the women who have taken part in it and the extent to which its conclusions can be relied on as general pointers to the nature of first-time motherhood as a life-course transition.

The review team was funded for a year (with a short extension due to illness). Systematic reviews are labour-intensive activities and they are subject to the limitation that not all relevant studies are retrievable in a limited time period. A total of 55 (24%) of the studies to be included in the mapping stage of our review could not be retrieved in time to be included in the review. Limited time also influenced the attention we were able to give to the detailed final synthesis of women's views: we were only able to focus in detail on two themes and five studies. It would have been desirable to have cast the net wider than this. Our review was also restricted for resource reasons to English language studies, which is a known source of bias (Egger et al., 2003). However, as we chose in the end to focus specifically on studies of UK women's views, it is unlikely that there would be studies where those views would be published in a language other than English.

We identified five high quality studies spanning thirty years of sociological research on women's views about becoming a mother. In analysing by decade in both the mapping and in-depth stages of our review, we have chosen arbitrary boundaries. These may not have reflected important societal changes, such as one-to-one midwifery care, and changes in maternity leave benefits.

Our decision to focus on studies of identity meant that we did not synthesise views about, for example, paid employment and maternity care, reported in other studies. We do not know whether inclusion of these other studies would have altered the key messages from the synthesis.

Our assessments of the methodological quality could be criticised on the grounds that they were produced in a social science research unit. However, it should be noted that the researchers involved had a range of backgrounds, including psychology, midwifery, sociology and biology.

5. Conclusion and recommendations

5.1 Research Methods

Searching for reports of first-time motherhood was challenging, due to poor descriptions by authors in title or abstracts, and poor indexing in social and medical electronic reference databases. This prompted us to use novel random sampling techniques, which provided a sense of the breadth of the transition to motherhood research, rather than the depth. A subsidiary piece of work, inspired by this study, is now underway in the EPPI-Centre comparing the productivity of random sample screening – the approach we used in this review – with the alternative approaches of comprehensive screening and text mining: the results should be available on the EPPI-Centre website in 2012.

The patchy and inconsistent reporting by study authors of sociodemographic data means that the external generalisability of their research results is limited. In studies which contained usable data, samples tended to focus on white, middle class women's experiences of the transition to motherhood. Researchers need to be aware of these generalisability issues and address them in the design, conduct and reporting of their work. At a minimum, researchers need to design, measure and report on age (range and mean), socioeconomic class, and ethnicity in order to be clear about whom they are studying and to whom their research results will apply.

5.2 Research Gaps

A large number of studies we found remain unscreened and unanalysed: this is a rich resource for other researchers. We looked in depth at only a small subset of studies: again, this is an opportunity for future work.

Our systematic review found that there were a number of areas where there were gaps in the existing evidence base relating to research on the transition to motherhood. These included:
- Older first time mothers
- First versus second time mothers
- Diverse groups of women (e.g. ethnicities, specific social classes)

Understanding more about older mothers, in particular, needs further examination, since there has been a steady increase in older mothers giving birth for first time. Our review identified five studies focused on older first-time mothers in particular. Further, older mothers often experience more fertility issues and the resultant medical interventions, and are usually of a different socioeconomic class, than women of younger ages. We are currently developing a research proposal for reviewing research on older first time mothers.

Primary and secondary research into first- versus second- time mothers is also recommended. For example, National Institute of Health and Clinical Excellence (NICE) antenatal and postnatal guidance concludes that women having their second and subsequent babies need fewer visits from midwives than first-time mothers (NICE 2010). However, it is not clear from the evidence extracted from the studies in this review whether women express a need for fewer visits or need different information during those visits, and whether their needs change in subsequent pregnancies. Further research will help to elicit this information; we are also preparing research proposals to examine this issue.

Similarly, changes in women's perception of time while awaiting, and with, a new baby merit further research. Women's 'downshifting' to a more fluid perception of time at the end of pregnancy may be a natural mediator of physiological childbirth. Further research is needed to understand this phenomenon, and whether it is being disrupted by regimented schedules imposed during childbirth.

Another important area is a systematic review of research into the specifics of communication between women and health care professionals in labour is needed, an area of tension highlighted in a number of studies.

5.3 Policy and practice related to becoming a mother

In order to help women make choices based on realistic expectations of labour and birth, midwives and doctors need to provide women with clear explanations of risks, incidence rates and outcomes in *first* births. This information is ideally based on an evidence base of sound epidemiological studies of physiological birth in low-risk women. Health professionals also need to respect women's accounts of their expectations and needs.

Many studies highlighted the impact on individual women of family and maternity policies. The rhetoric of motherhood as a socially valued role coexists with what women feel is a lack of respect and support for their role in raising children.

5.4 Family Support

Women recognise the need to develop and maintain strong support networks with partners, family, friends and their local communities in becoming mothers. Fostering strong communities where families have opportunities to thrive is therefore an important focus of health promotion for women as mothers.

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Appendix 1.1: Authorship of this report

The authors of this report are:

Ginny Brunton, Meg Wiggins, Ann Oakley (EPPI-Centre).

Appendix 1.2: Quality assessment criteria and scoring tool

For each study, rate the quality of methods described.
Section A: Aims

1.   What are the broad aims of the study? (please specify)
   a.   Explicitly stated
   b.   Implicit
   c.   Not stated
   d.   Unclear

Section B: Sampling

2.   Which methods does the study use to identify people, or groups of people, to sample from and what is the sampling frame? (please specify)
   a.   Not applicable
   b.   Explicitly stated
   c.   Implicit
   d.   Not stated
   e.   Unclear

3.   Which methods does the study use to select people, or groups of people (from the sampling frame)? (please specify)
   a.   Not applicable
   b.   Explicitly stated
   c.   Implicit
   d.   Not stated
   e.   Unclear

Section C: Characteristics of participants

4.   What was the total number of participants in the study? (please specify)
   a.   Not applicable
   b.   Explicitly stated
   c.   Implicit
   d.   Not stated
   e.   Unclear
5.   Age (please specify)
   a.   No evidence of measurement
   b.   Under 12 years
   c.   12 – 18 years
   d.   19 – 34 years
   e.   35+ years
   f.   Not stated
   g.   Unclear
6.   What is the socio-economic status of participants?(please specify)
   a.   Not applicable
   b.   Explicitly stated
   c.   Implicit
   d.   Not stated
   e.   Unclear

Section D: Data collection tools & methods

7.   Do the authors describe any ways they addressed the reliability of their data collection tools/methods? (please specify)
   a.   Yes
   b.   No

8.   Do the authors describe any ways they have addressed the validity of their data collection tools/methods? (please specify)
   a.   Yes
   b.   No

Section E: Accessing people's views

9.   Does this study use appropriate data collection methods for helping people to express their views? (please specify)
   a.   Yes
   b.   Partially
   c.   No

Section F: Relevance to the review question

10.   How useful is this study in helping to answer the review question? (please specify)
   a.   Very useful
   b.   Somewhat useful
   c.   Not useful

Section G: Overall Quality Rating

Add up your rating for each question (1-10) to determine an overall quality rating.

Scoring system

Not applicable = 1
Explicitly stated = 1
Implicit = 0.5
Not stated = 0
Unclear = 0

What is this study's weight of evidence in terms of answering this review question?

1. **High (8 – 10 points)**
2. **Medium (5 – 7.5 points)**
3. **Low (0 – 4.5 points)**

Appendix 2: In-depth review studies: Aims, methods, population, and quality ratings (n=14)

*=High quality sociological studies used in the in-depth review synthesis

Study	Aims	Methods	Population	Quality rating
*Bailey 1999	To examine the processes of transition (to motherhood); to investigate claims pertaining to identity and its construction in contemporary society, including the relationship between the discourses of motherhood and careers.	Semi-structured interviews with women in their first pregnancy. Antenatal interview conducted between 27 and 40 weeks.	**Location** Bristol, England **Sample number** 30 **Age range** 25-38 years **Socio-economic status** 'Middle class' SES not directly stated **Ethnicity** White	Aims 0.5 Sampling frame 0.5 Sampling selection 0 Sampling number 1 Ages 1 Socio-economic status 0.5 Reliable data collection 1 Valid data collection 1 Appropriate methods to elicit views 1 Usefulness of study 0.5 Total 7.0
*Earle 2000	To explore the relationship between the nature of antenatal care and the maintenance of a woman's self-identity during pregnancy	In-depth interviews with women in their first pregnancy Antenatal interviews between six and 14 weeks, then between 27 and 40 weeks; postnatal interview between six and 14 weeks.	**Location** Midlands (Birmingham) **Sample number** 19 **Age range** 16-30 years **Socio-economic status** Professional: 4/19 (21%) Semi-skilled: 7/19 (37%) Unskilled: 5/19 (26%) Unemployed: 3/19 (16%) SES not directly stated **Ethnicity** Not stated	Aims 1 Sampling frame 0.5 Sampling selection 1 Sampling number 1 Ages 1 Socio-economic status 0.5 Reliable data collection 1 Valid data collection 1 Appropriate methods to elicit views 1 Usefulness of study 1 Total 9.0

Study	Aims	Methods	Population	Quality rating
*Miller 2005	To explore the ways in which constructions and reconstructions of individual narrative trajectories of the transition to motherhood are contingent on the societal framing of contemporary motherhood.	Interviews carried out in participants' homes or locations of their choosing. Semi-structured interview schedules. Antenatal interviews between seven and eight months; postnatal interviews between six and eight weeks and eight and nine months.	**Location** UK Bangladesh Solomon Islands **Sample number** 17 **Age range** 19-34 years **Socio-economic status** Occupation/Social Class: Professional n=7 Skilled n=4 Semi-skilled n=5 Unskilled n=1 Education: O Levels n=7 A levels n=1 Degree n= 7 Did not specify n=2 Income: no measure **Ethnicity** Not stated	Aims 1 Sampling frame 0.5 Sampling selection 0 Sampling number 1 Ages 1 Socio-economic status 1 Reliable data collection 1 Valid data collection 1 Appropriate methods to elicit views 1 Usefulness of study 1 Total 8.5

Study	Aims	Methods	Population	Quality rating
*Oakley 1980	To show how the first experience of childbirth is an example of general change in people's lives, and how women's responses to the advent of motherhood can be seen in these terms; the contribution of medical maternity care and social factors to women's experiences in becoming mothers.	Interviews with first-time mothers and observations of antenatal and delivery care. Antenatal interviews at 14 and 34 weeks; 2 postnatal ones at five and 20 weeks.	**Location** West London UK **Sample number** Sample size fell from 66 at interview 1 to 56, at interviews 2 and 3 and 55 at interview 4 **Age range** 18-31 years **Socio-economic status** Occupation/Social Class N=55 I Professional n=2 II Managerial n=15 III Skilled non-manual n=34 III Skilled manual n=0 IV Semi-skilled n=4 V Unskilled n=0 According to the partner's occupation, 66% of the sample were middle class. No info on Education or Income **Ethnicity** Country of origin Britain n=46 (84%) Ireland n=5 (9%) North America n=4 (7%)	Aims 1 Sampling frame 0.5 Sampling selection 1 Sampling number 1 Ages 1 Socio-economic status 0.5 Reliable data collection 1 Valid data collection 1 Appropriate methods to elicit views 1 Usefulness of study 1 Total 9.0

Study	Aims	Methods	Population	Quality rating
*Thomson & Kehily 2008	To examine how women negotiate the identity and experience of motherhood over generations and time.	Interviews, facilitated by visual prompts and photographs. One antenatal interview, plus a 1 year follow up postnatal interview with 12 case study women	**Location** Milton Keynes **Sample number** 62 **Age range** 15-48 years **Socio-economic status** Working class: 12/33 (36% in city)+ 9/29 (31% in town) Lower Middle class: 15/33 (45% in city)+ 20/29 (69% in town) Unemployed: 4/33 (12% in city) SES not directly stated **Ethnicity** White: 21/33 (64% in city); 23/29 (79% in town) Turkish: 6/33 (18% in city) Others (Africans, Caribbean, Asians etc): 6/33 (18% in city); 6/29 (21% in town)	Aims 1 Sampling frame 1 Sampling selection 0.5 Sampling number 1 Ages 1 Socio-economic status 1 Reliable data collection 1 Valid data collection 1 Appropriate methods to elicit views 0.5 Usefulness of study 1 Total 9.0

Study	Aims	Methods	Population	Quality rating
Baker 1989	To identify the social categorizations used by first-time mothers to distinguish 'mothers' as a social group from 'working women'; to find out whether in group membership was positively or negatively valued; to determine which aspects of women's social experience were causally linked to variations in the positivity of social identity as a mother and, hence, satisfaction with motherhood and feelings for baby.	Antenatal interview at 29 weeks. Postnatal postal questionnaire at four weeks. Postnatal interview at 16 weeks.	**Location** Wilshire towns of Trowbridge, Bradford on Avon and Melksham **Sample number** 53 **Age range** 17-41 years **Socio-economic status** SES not directly stated The women in the sample represented a spectrum from professional and managerial to personal service; the largest single category was clerical/secretarial (38%). Levels of education also covered a wide spectrum, from university degrees to no educational qualifications; most women (59%) were educated up to ordinary level GCE standard **Ethnicity** Not stated	Aims 1 Sampling frame 0.5 Sampling selection 0 Sampling number 1 Ages 1 Socio-economic status 0.5 Reliable data collection 1 Valid data collection 1 Appropriate methods to elicit views 0.5 Usefulness of study 0.5 Total 7.0
Darvill 2008	To explore the transition to motherhood from women's perspectives. A secondary aim was to enable any unmet needs for support to be identified	Semi-structured interviews with first-time mothers. One postnatal interview conducted between six and 15 weeks.	**Location** South-West of England **Sample number** 13 **Age range** 17-39 years **Socio-economic status** Only education clearly described Years in School / Level Attained None - 1 A-level - 2 GCSE - 1 Degree - 6 College - 1 MSC - 1	Aims 1 Sampling frame 0.5 Sampling selection 1 Sampling number 1 Ages 1 Socio-economic status 0.5 Reliable data collection 1 Valid data collection 1 Appropriate methods to elicit views 1 Usefulness of study 0.5

Study	Aims	Methods	Population	Quality rating
			PhD – 1 In full time work n=9 **Ethnicity** White European origin	Total 8.5
Flakowicz 2007	To describe the impact of the birth of the first baby on a mother's identity during the first year of the baby's life and the psychic and external adjustments that the woman has to make to accommodate the baby.	Observation of, and and interview with, one first-time mother. Antenatal interview at 39 weeks. Monthly postnatal interviews until 12 months.	**Location London** **Sample number** 1 **Age range** Not applicable **Socio-economic status** Not stated **Ethnicity** White British	Aims 1 Sampling frame 0 Sampling selection 0 Sampling number 1 Ages 0 Socio-economic status 0 Reliable data collection 0 Valid data collection 0 Appropriate methods to elicit views 0 Usefulness of study 0 Total 2.0
Marshall 2007	To explore breastfeeding in the context of everyday living with a new baby; to consider how it is valued and managed within the wider context of becoming a mother and the shift in identity which that implies.	In-depth interviews and observation at home. One postnatal interview with women between three and 12 weeks.	**Location** North of England **Sample number** Observational data n=158 Interviews n=22 **Age range** 16 to 31 years **Socio-economic status** Occupation: majority middle class Education: not described SES: income or class not described **Ethnicity** White UK - 16 White other - 1 Asian - 3 Afro-Caribbean - 1 Iraqi – 1	Aims 1 Sampling frame 1 Sampling selection 0 Sampling number 1 Ages 1 Socio-economic status 1 Reliable data collection 1 Valid data collection 1 Appropriate methods to elicit views 0.5 Usefulness of study 0.5 Total 8.0

Study	Aims	Methods	Population	Quality rating
Richards et al 2007	To examine adolescent motherhood from mothers' own perspectives, exploring their attitudes towards the issues that they describe as being important in their lives.	Interviews and questionnaire. One postnatal interview when children's mean age was 21.7 months (range three months to five years).	**Location** North East of England **Sample number** 23 **Age range** 14-20 years **Socio-economic status** Full time mothers n=14 In part time education n=7 In full time education n=1 In part time employment n=1 No information on income, social class or occupation **Ethnicity** Not stated	Aims 1 Sampling frame 1 Sampling selection 0 Sampling number 1 Ages 1 Socio-economic status 0 Reliable data collection 1 Valid data collection 1 Appropriate methods to elicit views 0.5 Usefulness of study 0.5 Total 7.0
Scott and Hill 2001	To examine changes, from the pre- to postnatal period, in a range of parenting-related beliefs for first-time mothers.	Questionnaire Administered antenatally at 20 weeks; and postnatally at six months.	**Location** Women attending hospital antenatal clinic in Cheshire **Sample number** 103 **Age range** 16-40 years **Socio-economic status** Highest educational qualification: None n=3 (2.9%) O level/GCSE or equivalent n=54 (52.4%) A level n=17 (16.5%) Degree n=24 (23.3%) Missing cases n=5 (5%) No information on income, social class or occupation **Ethnicity** Not stated	Aims 1 Sampling frame 0.5 Sampling selection 0.5 Sampling number 1 Ages 1 Socio-economic status 0 Reliable data collection 0.5 Valid data collection 1 Appropriate methods to elicit views 0 Usefulness of study 0 Total 5.5

Study	Aims	Methods	Population	Quality rating
Smith 1994	To examine the notion of self-reconstruction; to consider the implications of reflexivity for the practice of psychological research; to work toward a theoretical model of the relational self derived from the intensive examination of a small number of case studies of women going through their first pregnancy; to illustrate the development of a theoretical model of how aspects of a woman's sense of identity can be transformed during the transition to motherhood.	Interviews plus diary plus repertory grid developed from women's views. Antenatal interviews at three, six and nine months; postnatal interviews at five months.	**Location** Not Stated **Sample number** Total sample = 4 Some studies use n=1, n=3, n=4 depending on analysis used **Age range** 25-29 years **Socio-economic status** Occupation: Bank clerk Occupational therapist Blood transfusion aide Voluntary organization development officer (middle class) No information on education, income or social class **Ethnicity** Not stated	Aims 1 Sampling frame 0.5 Sampling selection 0 Sampling number 1 Ages 1 Socio-economic status 0 Reliable data collection 1 Valid data collection 1 Appropriate methods to elicit views 0.5 Usefulness of study 0.5 Total 6.5
Urwin 2007	To explore how identities and changing identity are lived and experienced, and the contradictions that arise for young women going through this biological, psychological and social upheaval within a particular socio-cultural context.	Interviews and observation. Antenatal interview at 39 weeks and postnatal interview at 12 months. Weekly observations.	**Location** Inner city of London **Sample number** 6 **Age range** Not stated **Socio-economic status** No evidence of measurement of income, education, occupation or social class **Ethnicity** Bangladeshi n=2 White n=2 African n=1 African Caribbean n=1	Aims 1 Sampling frame 1 Sampling selection 0.5 Sampling number 1 Ages 0 Socio-economic status 0 Reliable data collection 1 Valid data collection 1 Appropriate methods to elicit views 1 Usefulness of study 1 Total 7.5

Study	Aims	Methods	Population	Quality rating
Wheatley 2001	To explore women's experiences of having their first child; to investigate possible predictors of engagement in parenting health promotion interventions; to help women empower themselves; not to do it for them - to reduce the likelihood of postnatal depression	Interviews at home with first-time mothers. One postnatal interview at around 12 months.	**Location** Leicestershire **Sample number 9** **Age range** 17-31 years **Socio-economic status** Unclear – 'very different backgrounds', 'most worked' No information on income, education, occupation or social class **Ethnicity** European -intervention n=103 (75%) -control n=106 (77%) Asian -intervention n=103 (28%) -control n=106 (29%)	Aims 1 Sampling frame 0 Sampling selection 1 Sampling number 1 Ages 1 Socio-economic status 0 Reliable data collection 0.5 Valid data collection 0.5 Appropriate methods to elicit views 0.5 Usefulness of study 0.5 Total 6.0

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