

# 1 **Women's Mental Health during Pregnancy: A Participatory Qualitative Study**

## 2 **Abstract**

3 **Background/objectives** British public health and academic policy and guidance promotes service  
4 user involvement in health care and research, however collaborative research remains  
5 underrepresented in literature relating to pregnant women's mental health. The aim of this  
6 participatory research was to explore mothers' and professionals' perspectives on the factors that  
7 influence pregnant women's mental health.

8 **Method** This qualitative research was undertaken in England with the involvement of three  
9 community members who had firsthand experience of mental health problems during pregnancy. All  
10 members of the team were involved in study design, recruitment, data generation and different  
11 stages of thematic analysis. Data were transcribed for individual and group discussions with 17  
12 women who self-identified as experiencing mental health problems during pregnancy and 15  
13 professionals who work with this group. Means of establishing trustworthiness included  
14 triangulation, researcher reflexivity, peer debriefing and comprehensive data analysis.

15 **Findings** Significant areas of commonality were identified between mothers' and professionals'  
16 perspectives on factors that undermine women's mental health during pregnancy and what is  
17 needed to support women's mental health. Analysis of data is provided with particular reference to  
18 contexts of relational, systemic and ecological conditions in women's lives.

19 **Conclusions** Women's mental health is predominantly undermined or supported by relational,  
20 experiential and material factors. The local context of socio-economic deprivation is a significant  
21 influence on women's mental health and service requirements.

22 **Key words** Pregnancy, participatory research, women's mental health, qualitative interviews,  
23 socioeconomic deprivation

24 **Introduction**

25 Department of Health (England) policy and guidance promotes service user involvement in health  
26 care and research [1]. Although there is the expectation of patient and public involvement,  
27 collaborative research remains broadly underrepresented in antenatal mental health literature, and  
28 collaborative research does not feature in current National Institute for Health and Care Excellence  
29 (NICE) guidelines in the UK on Antenatal Mental Health [2].

30 The aim of this participatory research was to explore women’s and professionals’ perspectives on  
31 mental health during pregnancy, and particularly those factors that are viewed as undermining  
32 mental health and well-being.

33 **Table 1: Statement of Significance**

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Problem or Issue	There is limited public involvement in research about the factors that contribute to women’s mental health problems during pregnancy.
What is Already Known	Professional and academically driven research has identified a wide range of factors associated with poor mental health during pregnancy. These include socio-economic adversity; lack of support; self-criticism/judgement and judgement by others; experience of current and historic abuse; confounded expectations; stigma and shame; relationships; the role of alcohol and drugs.
What this Paper Adds	This paper adds a detailed qualitative analysis of women’s accounts of the factors they associated with their mental health problems. This research was designed and conducted with and by women who have firsthand experience of poor mental health during pregnancy.

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36        **Background**

37            Literature

38    Maternal mental health during pregnancy has been widely researched and associated with negative  
39    outcomes for affected women’s children. The effects of poor mental health include preterm labour,  
40    low birth weight and early neonatal complications [3-5], childhood neurodevelopmental problems  
41    and adolescent mental health and behavioural problems [6, 7].

42    Beyond the potential impact on her children, a woman’s mental health during pregnancy is also  
43    closely connected to her risk of ongoing mental health problems after delivery. A review of the  
44    research literature establishes the association between antenatal and postnatal depression.

45    Particular factors associated with postnatal depression were pre-existing depression, anxiety, life  
46    stresses and low levels of social support during the pregnancy [8]. Enquiries into maternal deaths in  
47    the UK (CMACE) have illustrated the relatively rare but tragic consequences of poor maternal mental  
48    health for families with new babies. These reports show statistics of 71 maternal deaths from  
49    ‘psychiatric causes’ recorded from 1994 to 2008 [9].

50    A review of qualitative literature exploring women’s experience of mental health problems during  
51    pregnancy was undertaken at the outset of this research (currently under review). The literature  
52    search included specific common mental health conditions such as depression, anxiety and severe  
53    childbirth fear, and self identified mild to moderate emotional distress. This search also identified  
54    research that focused on conditions in women’s lives that were associated with mental health  
55    problems such as intimate partner abuse [10], diagnosis as HIV positive [11], a history of sexual  
56    trauma in childhood or adulthood [12, 13] and previous perinatal loss.

57            Major themes identified in this literature included the causes of distress such as

- 58            •    Socio-economic adversity

- 59           • Lack of support
- 60           • Self-criticism/judgement and judgement by others
- 61           • Experience of abuse
- 62           • Confounded expectations
- 63           • Stigma and shame
- 64           • Relationships
- 65           • The role of alcohol and drugs.

66 Many papers described pregnancy/mental health interactions and women’s strategies for managing  
67 mental health problems (both positive and negative). Further common themes examined self and  
68 identity, and hopes or anxieties about being a good mother.

## 69 **Method**

70           The research was initiated by the first author (XX) as part of her PhD studies, supervised by the  
71 other two authors (YY and ZZ).

### 72           Researcher subjectivity

73 As a qualitative study, the authors recognise the importance of reflexivity and transparency  
74 regarding researcher subjectivity [14]. The first author had prior experience as an NHS clinical  
75 psychologist in the researched locality and was inspired by community psychology (15). The second  
76 author is a registered midwife with an interest in mental health and the third author has background  
77 in social work, mental health and interest in women’s well being and intimate partner abuse.

### 78           Developing the research team

79 The process of the research began with consultation with local professionals for discussion on the  
80 research topic and approach and to contact local mothers with experience of mental health  
81 problems who might be interested in taking part in the research.. After attending many local

82 mothers' groups and following up recommendations from professional contacts, three community  
83 members were recruited to the research team. All had first- hand experience of mental health  
84 problems during pregnancy. Two were pregnant during the early stages of the research and one had  
85 three children, one of whom was approximately one year of age at the start of the study.

86 All members of the team were involved in study design, recruitment, data generation and analysis.

87 The non-academic members of the research team received some basic training on qualitative  
88 interviewing and analysis from the first author (XX) and due to their limited experience of this  
89 approach, a relatively straightforward design of thematic analysis was recommended by the  
90 academically trained members of the team. Epistemology was discussed within the team and a  
91 realist approach was agreed for the purposes of this project. Research Questions were decided  
92 within the team to focus on 'what undermines and supports women's mental health during  
93 pregnancy, and what are their experiences of health services'. Additional questions were included  
94 for professionals about their own experience of work and training about pregnant women's mental  
95 health.

#### 96 NHS Research Ethics Process

97 Ethical approval was gained from the National Health Service Research Ethics Committee (Reference  
98 number 09/H0301/69). A full account of the complex issues arising within this process for  
99 participatory research is provided elsewhere[15]. Prior to approval, the Research Ethics Committee  
100 required inclusion of assurances of confidentiality, support to be made available to participants who  
101 experienced distress during data generation, and actions to be taken as legally required in the event  
102 of concerns arising from disclosure of harm to children. Plans were in place to refer participants for  
103 support in the event of distress arising during interviews. There were no occasions on which these  
104 issues emerged during data generation.

105

106        Participants

107        Maximum variation and theoretical sampling [16, 17] were used to guide sampling decisions as the  
108        research progressed. Decisions were informed by emerging themes from preliminary analysis of the  
109        initial data and discussion in the research team, together with developing familiarity with the  
110        community being researched and advice from relevant local professionals. The aim was to  
111        incorporate into the study design an appreciation of the issues from as diverse a range of  
112        perspectives as was feasible within the timescale of the research.

113        Fifteen professionals were recruited from services working with pregnant women within statutory  
114        and independent sector agencies. Initial participants for the professional sample were sought from  
115        the research teams' existing professional networks. This stage of recruitment was followed by  
116        'snowballing', whereby existing contacts were asked to suggest other people who had knowledge of  
117        the research issues. The approach to snowballing aimed to contact a range of professionals in  
118        different roles and different services, including the statutory mental health and maternity services  
119        and voluntary sector services for pregnant women.

120        Seventeen participants were recruited from the local population of antenatal and recently  
121        postnatal women. This research aimed to be inclusive and develop a comprehensive understanding  
122        of the many experiences of mental health during pregnancy. The researchers contacted both  
123        statutory and third sector services and community groups to recruit participants. These included  
124        primary care, maternity services, mental health services and community services for women with  
125        young children. Because some potential participants may not have been in contact with services,  
126        the research was presented in the local press and on local radio to make interested potential  
127        research participants aware of the study and give information about how to contact researchers. In  
128        addition to raising awareness in local media, the community co-researchers shared information with  
129        their personal networks and two participants were recruited in this way.

130 All participants were provided with comprehensive Participant Information Sheets and given  
131 opportunities to ask questions and consider participation prior to deciding whether to sign a form to  
132 confirm their consent to participate in an interview and for their words to be used in written reports  
133 of the study. No incentives were offered to participants to take part in the research. Further  
134 information was given at the beginning of each individual or group interview to explain the intended  
135 focus of the interviews, give assurances of confidentiality and outline exceptional circumstances in  
136 which researchers would be legally required to disclose information, such as under the terms of  
137 safeguarding children legislation.

### 138 Data

139 Data were generated in individual and group interviews during the early part of 2011. Interviews  
140 lasted between 60 and 120 minutes, depending on the participants' preferences. Two mothers  
141 preferred to be interviewed with their partners as a couple. Any data from partners were not  
142 included in the primary analysis, but provided context for the mothers' data. The data from women  
143 who took part with their partner present was analysed using the same strategy of thematic analysis  
144 as other data collected in groups. The analysis of group data does not focus on the interactions  
145 within the group or couple, although it is acknowledged that the data from within these settings is  
146 affected by the context. Many interviews were conducted by the first author (XX) and one of the  
147 community co-researchers, except in the cases where no co-researcher was available or the  
148 participant expressed a preference to be interviewed by only one person. At the time of all data  
149 generation the Criminal Records Bureau (now Disclosure and Barring Service) checks for co-  
150 researchers were all outstanding and therefore the first author (XX) who had an existing CRB  
151 disclosure was required to be present for all contact with research participants. Data were collected  
152 in community locations that were convenient for participants, including clinic and community  
153 workplaces for professional participants and local children's centres and participants' homes for

154 mothers. The Data were stored securely at the University of East Anglia and transcribed verbatim  
155 from audio recordings by the first author (XX).

## 156 Analysis

157 The data transcripts were analysed using Thematic Analysis [18]. The Thematic Analysis was  
158 approached as a 'bottom-up' process in which all data within the transcripts was examined and  
159 analysed for patterns of meaning to explore what themes are important in addressing the research  
160 questions. There were no hypothesised a priori themes to be sought within the data, but all themes  
161 were developed based upon what existed in transcripts of participants' accounts. Initial coding was  
162 undertaken by the team members who had been involved in generating data, except in the cases in  
163 which the interview had involved only one researcher. In such cases, another member of the team  
164 contributed to the initial coding. Indexing of all data was carried out using Microsoft Excel by the  
165 first author (XX) during the summer of 2011 using initial line-by-line codes generated by the team.  
166 Further thematic analysis was developed with one co-researcher with a particular interest in this  
167 stage of the research. Emergent themes were built from the data in a bottom-up process. This was  
168 carried out during the winter of 2011 through the spring and early summer of 2012. It was  
169 necessary to remain flexible in the stage of data analysis to respect the interest and preferences of  
170 members of the research team.

## 171 Findings overview

172 The focus of this paper is on commonalities between mothers' and professionals' data regarding the  
173 factors that were considered to undermine women's mental health during pregnancy.

174 Anonymised participants are identified as mothers (M) and professionals (P) who took part in  
175 individual (I) or group (G) discussions, for example IM1 or IP1, etc. Group members are identified by  
176 the number of the group in which they participated, plus a letter, for example, a mother who took



177 part in the second group would be GM2a, b, or c, etc. Two women who preferred to be interviewed  
178 with their partners as a couple are identified as CM1 or CM2.

179 Thematic analysis generated six over-arching categories of factors and conditions that were  
180 identified by maternal and professional participants as having an impact on women's poor mental  
181 health during pregnancy. These were: Individual Factors; Personal Experiences; Pregnancy Related  
182 factors; Relationship Factors; Social Conditions; and Material Conditions. Each of these larger  
183 categories is built up from lower level themes that emerged from analysis of the data. Figure 1  
184 shows an overview of findings including the social, material and relational contexts of deprivation  
185 affecting women's lives and professionals' work. The segments of this diagram are outlined below  
186 with quotes from the data to illustrate.

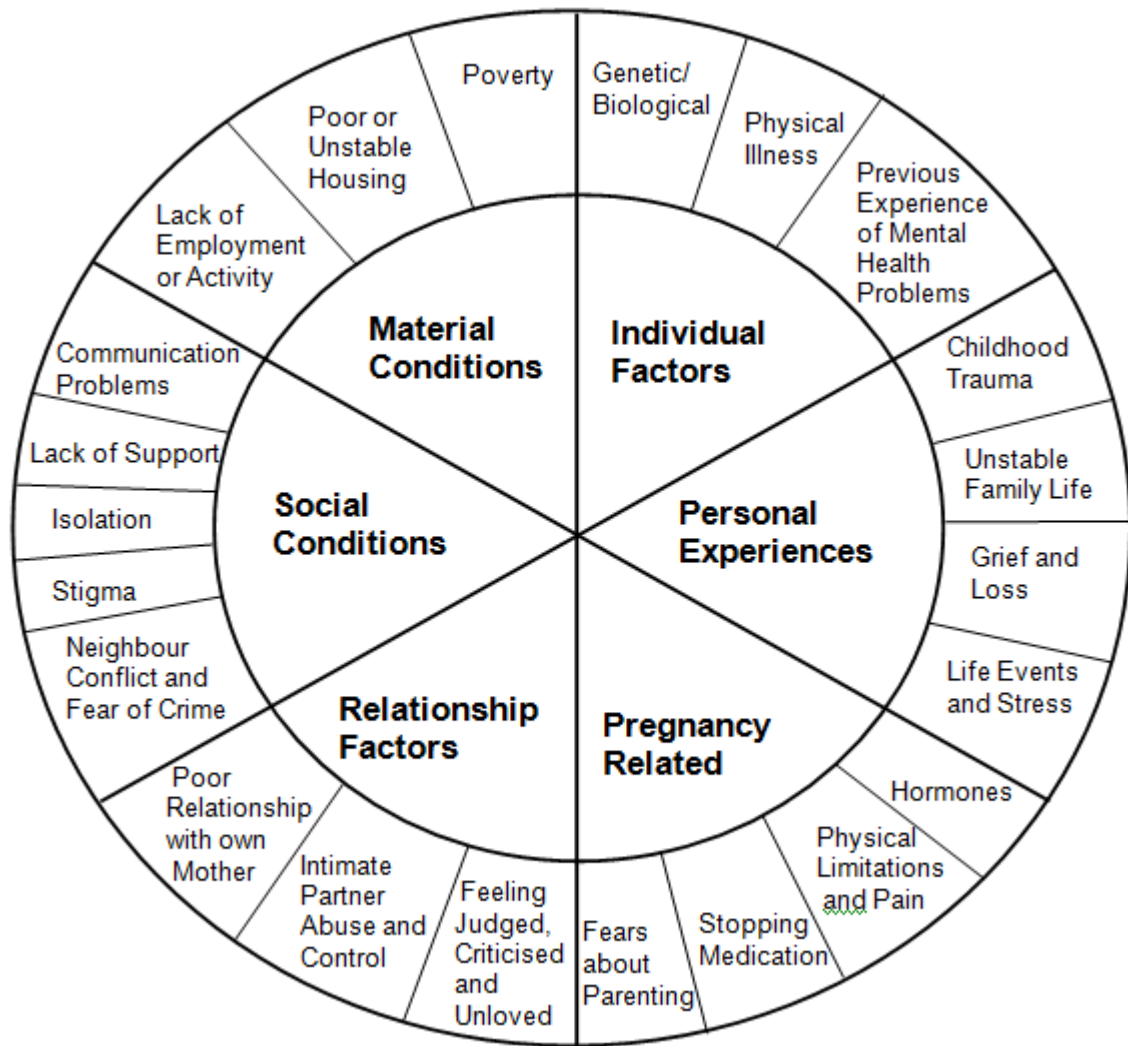


Figure 1: Contexts of Deprivation Affecting Pregnant Women's Mental Health

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190 Individual Factors

191 Mothers and professionals described a number of individual physical factors that they  
 192 considered to have an influence on pregnant women's mental health. These were frequently  
 193 positioned as pre-disposing factors that were a distal influence on women's more recent  
 194 experiences, although a small number of participants considered these to be causal.

195

196

197 Genes and biology

198 Very few professionals or mothers volunteered genetics as a cause for mental health problems,  
199 although a small number of mothers expressed strong beliefs in this factor.

200 *'you're born with Bipolar... people who are gonna have it are born with it.. what it is, is a*  
201 *chemical imbalance in the brain, which renders you unable to control your own emotions' (IM4)*

202 *'even my brother suffers with mental health as well, so I think there must be some sort of*  
203 *genetic thing or something' (IM1)*

204 Several mothers and professionals expressed ideas about mental health problems 'running in the  
205 family', and gave accounts of mental health problems passing down through generations, but did  
206 not give a genetic explanation for this intrafamilial process of transmission.

207 Previous experience of mental health problems

208 There was an understanding across groups of mothers and professionals that a prior history of  
209 mental health problems was associated with greater risk of relapse during pregnancy.

210 *'there is research to show that if you've previously suffered, from a mental health problem,*  
211 *you're more likely' (IP3)*

212 This may have been a concern expressed to mothers by professionals and then recounted by  
213 mothers.

214 *'because I had depression as a teenager I had, that, what, well whatever reason, that made*  
215 *pregnancy high risk, just because of depression' (IM3)*

216

217

218 Personal experiences

219 Childhood trauma

220 The majority of women and professionals related childhood neglect and abuse with the mental  
221 health difficulties women experienced during their pregnancies. Women described emotional  
222 distress stemming from traumatic memories, increasing feelings of vulnerability during the  
223 pregnancy and anxieties that their own history of abuse or neglect would affect their ability to  
224 parent.

225 *'I then did spend days, kind of crying, and just completely.. over emotional about everything and*  
226 *that, 'why am I having a child' I wouldn't be able to look after it, and if I can't look after myself,*  
227 *and that's how people see myself, then how am I gonna look after a child' (IM2)*

228 Sometimes those women remembered being removed from their birth families into Local  
229 Authority care and were resistant to seeking help in case their own children were also removed from  
230 parental care.

231 Some experienced professionals had relationships with generations of women within the same  
232 family and were able to remember the struggles of the new mothers' own mothers.

233 *'quite often what we're seeing as adults is those children that were living in abuse and neglect,*  
234 *obviously ten, fifteen years ago, and the rates of poverty haven't improved --- in terms of, you*  
235 *know, some of the most deprived areas' (IP2)*

236 Unstable family life

237 Mothers and professionals described early experiences of instability, due to a range of reasons,  
238 including poverty, childhood bereavements, parental ill health, and parental domestic abuse with  
239 frequent cycles of relocation to women's refuges and return to the abusive partner.

240 *'dad worked a lot.. like I mean a lot, lot --- high demand.. I remember one year he had to travel,*  
241 *couldn't take us, I was so sad when my dad went, cause I really didn't .. get on with my mum,*  
242 *especially being little, cause she didn't want to do anything, cause she's so.. sad.. you know'*  
243 *(GM2c)*

244 *'then looking back at her own childhood, can see that she wasn't, she wasn't protected, um... by*  
245 *her own mum, and, um, maybe mum's been in and out of different relationships' (IP5)*

246 Previous pregnancy loss

247 Loss of earlier pregnancies by miscarriage or medical termination was related by mothers and  
248 professionals to anxiety about a further loss during the current pregnancy. Mothers also described  
249 feelings of abandonment by services during and following previous pregnancy losses and a  
250 subsequent lack of confidence in the health care system to help them during the current pregnancy.

251 *'before I had [daughter], I lost two, at twenty two weeks, both had to be delivered, and both*  
252 *were buried, and.. the fear of going through it again' (IM5)*

253 *'women who have had.. multiple miscarriages, and then become pregnant ... and that produces*  
254 *this, massive experience of anxiety' (IP1)*

255 *'the medical terminations, it's, they feel guilty --- because they've had to have the medical*  
256 *termination, on the one hand they understand the rationale behind it, but they still feel guilty,*  
257 *they feel it's something that they've done wrong' (IP5)*

258 Life Events and Stress

259 A wide range of stressful and life circumstances were related by both mothers and professionals  
260 to the development and maintenance of mental health problems.

261 *'they're coming into pregnancy with low mood, low self esteem, depression, it's not particularly*  
262 *antenatal depression, it is --- depression, they have really hard lives --- it's not, you know, it's not*  
263 *suddenly come on cause they're pregnant' (IP8)*

264 For women with older children at the time of the current pregnancy, many complex issues were  
265 described that impact on the current pregnancy. These related to the demands of caring for an  
266 older, or disabled child, comparisons between the current pregnancy and the previous one, the  
267 presence of older step children from the father's previous relationship, and behavioural problems  
268 with teenagers who expressed resentment about the mother's new relationship and pregnancy.

269 *'when I just had [eldest], I was the mum I always wanted to be.. but then when I was pregnant,*  
270 *cause I couldn't do all the things with her [crying, big intake of breath].. I then just felt really bad*  
271 *that I couldn't play, and she wasn't getting.. the best from me' (CM1)*

272 *'he was about, just coming up to two when I gave up work, and became his full time carer, and*  
273 *then obviously as, sort of, more of his mental health issues come up, it's just got to a point*  
274 *where it's just easier for me to look after him, than to hunt down people that look after special*  
275 *needs children' (IM3)*

276 In many cases women expressed feelings of guilt in relation to their poor mental health,  
277 identifying themselves as primarily responsible for the problems they faced and fears about their  
278 abilities to care for their current and future children.

279 *'anxious and overwhelmed by their difficult, you know, by their feelings and because of*  
280 *circumstances in terms of poor housing, or difficulties in relationships' (IP2)*

281

282

283 Pregnancy-related

284 Parenting fears

285 Both mothers and professionals described the negative impact of beliefs that parents who had  
286 experienced abuse in their own childhoods would become perpetrators of abuse against their  
287 children. Mothers expressed many anxieties about their own abilities to parent their children due to  
288 their mental health problems and social circumstances.

289 *'Am I gonna be like my dad? ...Granddad used to beat Dad, Dad used to beat me and my sister...  
290 am I gonna be beating my son... am I gonna be that type of parent that gets my kid taken off of  
291 me... or that kills him one day?'* (IM2)

292 *'Simple misconceptions around abuse and, one of the simple ones, was if you've been abused, so  
293 therefore you've got a high chance of abusing, and that being given out to a mother when she  
294 was pregnant and giving birth, and then .. leading to... fearing that experience, that she would  
295 then recreate an abuse experience with her child'*(GP2c)

296 Although mothers expressed concern about becoming abusers, in some cases, they also described  
297 failing to protect themselves and their children from abusive partners, thus repeating a pattern of  
298 failed protection that they had experienced as children.

299 *'I done exactly the same thing, like, with the kids' dad, he's, he's been extremely violent to me,  
300 and threatened to kill me, and was even violent towards the kids, and um... I stayed, I was with  
301 him for five years'* (IM1)

302 The pattern of abuse was not often expressed as being one of direct perpetuation of abuse, but a  
303 continuation of the experience of being abused into adulthood.

304

305 Hormones

306 In common with the role of genetics, very few mothers and professionals suggested the effects of  
307 hormones on women's mental health during the pregnancy. There were only two instances of this  
308 data within all of the individual and group interviews.

309 *'they're [hormones] definitely having an impact on the relationship as well --- well, you get really*  
310 *moody with 'em, whereas.. before you wouldn't' (GP2a)*

311 *'for a lot of women I see, it's chemical changes... um, which, you know, you can't really do*  
312 *anything about' (IP3)*

313 The role of genes and hormones were perhaps framed in terms of the impact on a mother who feels  
314 she lacks agency or control over her emotional experience.

315 Relationship Factors

316 Although many mothers and professionals described relationships as supportive and protective,  
317 negative experiences of relationships were also widely cited as causing distress to pregnant women.  
318 Conflict and abuse in adulthood ranged across relationships with intimate partners, family members,  
319 neighbours and others in the community.

320 Feeling judged, criticised and unloved

321 Both professionals and mothers gave detailed accounts of criticism and judgement from family  
322 members, with associated difficulties in seeking and receiving support within these relationships.

323 *'I've had a lot of grief off of my mum and my sister about taking tablets for depression' (IM7)*

324 *'she'd just come down and lecture me about why I was in hospital, and what I was doing wrong*  
325 *and what I should be doing' (GM1b)*



326 *'family members often are the worst --- that's what I've found anyway, family members are*  
327 *often the worst, yeah, especially grandma, or somebody like that, you know --- if everything's*  
328 *always been plain sailing for them' (IP5)*

329 Mothers also described experiences of judgement and harassment by peers, neighbours and  
330 strangers within their communities. These experiences ranged from criticism of dietary choices by  
331 other pregnant women to public instances of obesity-related abuse by strangers.

332 *I'm leaning on a lamppost and some kids went past and spat at me out of the window of their*  
333 *car, and one of them was laughing and shouting names and all kinds of stuff. (IM2)*

334 Intimate partner relationships

335 Both mothers and professionals talked about the impact of intimate partner abuse, and the long-  
336 standing patterns of relating that could reflect a vicious cycle between abuse and poor mental  
337 health.

338 *'I do tend to go into a lot of unstable relationships, every single one of my relationships has*  
339 *been unstable, and violent, and that's because you tend to think that's all that you're worth in*  
340 *the end' (IM1)*

341 *'with my domestic violence background, I strongly believe that a lot of, a lot of the issues... do*  
342 *stem from that, that self esteem, that from a very young age, that, that, you know, settling for*  
343 *second best is ok, cause second best is better than nothing, and 'that's ok for him to do that'*  
344 *(IP4)*

345 These relationship problems included many forms of abuse, from physical violence, belittling,  
346 emotional abuse and financial exploitation.

347 *'I wasn't allowed any money, I was given six pounds a week.. [laughs], um, I used to bring in sort*  
348 *of two hundred pounds' (IM7)*

349 Social conditions

350 Stigma

351 Mothers and professionals described negative effects of stigma on women's mental health and  
352 access to services. Several women attending a community support group for young mothers  
353 declined to take part in the research due to anxieties about stigma and the perceived threat of  
354 safeguarding concerns arising if they admitted to experiencing mental health problems. Mothers  
355 described feeling unable to seek support from their friends and families due to stigma about mental  
356 health.

357 *'I felt like I couldn't talk to the doctor, I feel, and I know it sounds really silly and I've been told,*  
358 *that, I felt it was a sign of weakness to try and... tell somebody I was depressed' (CM2)*

359 *'I think there was a huge, within this community, a huge stigma, um about depression, um, it's*  
360 *not a nice thing to admit to, you know, it kind of tinges the whole family --- so it's very much*  
361 *dealt with in-house' (IP7)*

362 In addition to stigma about mental health problems, some mothers also faced stigma due to their  
363 age or membership of migrant or traveller communities.

364 *'society frowning upon them, because they're young mums' (IP4)*

365 Isolation

366 Mothers and professionals described the distressing impacts of isolation stemming from many  
367 sources. Estrangement from family and friends through conflict or migration were cited as common  
368 causes for isolation and some participants described a vicious cycle between poor mental health and

369 lack of social engagement. For many women, although isolation was a painful feature of life,  
370 pregnancy felt like a time when they especially needed emotional support and practical help. The  
371 majority of mothers and professionals described a lack of community resources for antenatal  
372 women to connect with peers and professionals for informal support.

373 *'not having anyone to talk to.. will just torment you even more.. because then you're having to*  
374 *question and answer everything yourself --- which doesn't help' (IM5)*

375 *'there is no place where you can go to be emotional really' (GM2c)*

376 *'losing links with extended family, being quite isolated, and in those kind of situations, it's quite*  
377 *difficult, because often, there isn't a kind of community resource which you can refer them to'*  
378 *(IP7)*

379 Material Conditions

380 Participants described significant issues of social and material adversity, including poverty, poor  
381 housing and lack of social, educational and employment opportunities.

382 *'[the town] must have a, an increased incidence of mental health issues, because of the*  
383 *combination of financial and social problems' (IP6)*

384 Poverty

385 Many participants recognised the deleterious impacts of poverty, debt and lack of financial control.  
386 This related to financial exploitation by others and to having few opportunities to establish financial  
387 security through employment.

388 *'I only get, from the [charity] I only get one [supermarket] ten pound voucher and that's for food*  
389 *and that's it, that's all I live off of for a week' (GM2c)*

390 *'I could just buy whatever I wanted if I had my own money... where, I don't have my own money'*

391 *(CM1)*

392 Work

393 Although a small proportion of mothers were, or had recently been in employment, there were  
394 many women and professionals who connected poor mental health with lack of employment or  
395 activity and unhappy experiences associated with occupational activity. Mothers who had previously  
396 worked described negative experiences in employment, primarily associated with unsupportive or  
397 exploitative employers.

398 *'she was saying that I'd have to work during the week, and stuff like that, and it just, that was*  
399 *just really stressful' (CM1)*

400 *'it was all fine, until he fired me for asking for payslips' (GM2c)*

401 *'the local [town] girls whose families have been here two or three generations who have never*  
402 *worked, and, they have no ambition, no aspiration --- I think they're just low, they just all seem*  
403 *very low' (IP8)*

404 Poor or unstable housing

405 Young women described family conflict that resulted in being made homeless or moving to live with  
406 grandparents. Some neighbourhoods were described as dangerous and mothers reported fear of  
407 crime, conflict with neighbours and resulting isolation. Other professionals and mothers reported  
408 poor housing with limited local alternatives. Both mothers and professionals described exploitation  
409 by private landlords.

410 *'it was really bad, and it, it got ridiculous, especially in the one room, and it was just obvious*  
411 *that the flat had loads of problems, but you just obviously weren't aware of it until, you know,*

412 *winter time came round, and it was a nightmare, and I wanted to go and get let out of the, the*  
413 *contract early, and they were saying 'no' ' (CM2)*

414 *'I had a lot of upheaval, once, while I was pregnant, um, the council made us homeless, so we*  
415 *ended up moving from one place to another, and I moved four times in total while I was*  
416 *pregnant, and the last time was two days before she was born' (GM1b)*

417 *'they're constantly stressed about it --- they're constantly, you know, they get put in temporary*  
418 *accommodation' (IP4)*

419 Summary

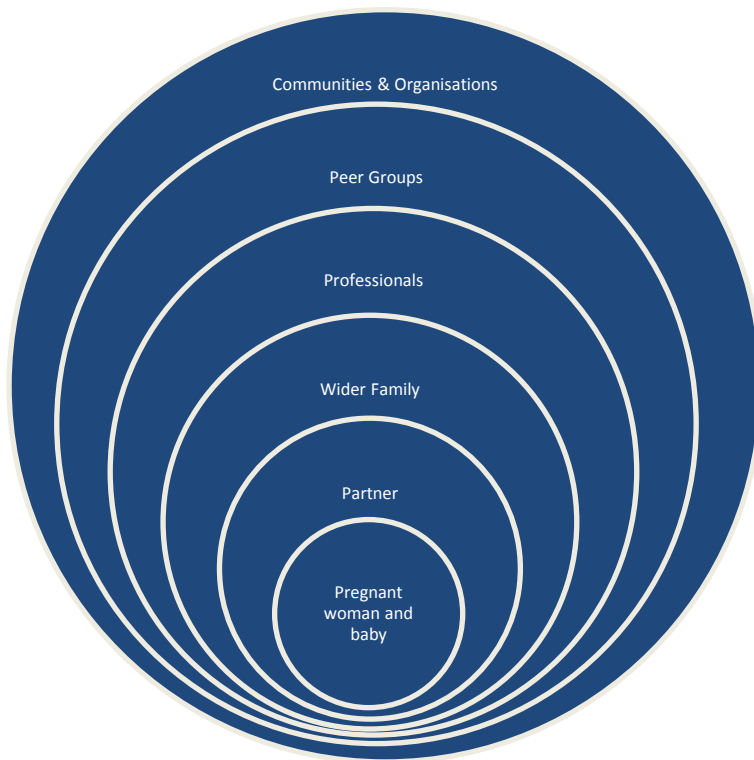
420 The data and analysis from this study shows the wide range of influences that can affect  
421 women's mental health during pregnancy. This analysis explored the impacts of disadvantage  
422 including individual factors such as biology and personal history, alongside the embodied experience  
423 of pregnancy within a relational, social and material contexts. Many themes were addressed by both  
424 mothers and the professionals who work with them. Frequently professionals gave an overview of  
425 conditions of the populations with whom they have worked and individual mothers gave detailed  
426 accounts that illustrated experiences that many shared. This research offers an insight into the  
427 complexity of women's mental health and pregnancy experiences and cautions against taking an  
428 overly simplistic and decontextualised approach to understanding the issues.

429 Supporting pregnant women's mental health

430 Beyond identifying the details of life that had a negative impact on pregnant women's mental  
431 health, data from this study provides further information focussing on how mothers and  
432 professionals talked about the same factors (such as relationships and social/material conditions)  
433 with positive impacts dependent upon the nature of the experiences. For example, the analysis  
434 demonstrated that mothers and professionals talked about how relationships, good and bad, current

435 and historical had a significant bearing on how new mothers coped with their pregnancy  
436 experiences. The different levels of social contexts in which pregnant women's lives were situated  
437 within the data are summarised in Figure 2.

438



439

440 Figure 2: Levels of Social Contexts of Pregnant Women's Lives

441 **Discussion**

442 There was substantial agreement between mothers' and professionals accounts regarding the  
443 factors that undermine and promote mental health and the difficulties in accessing supportive  
444 services when needed. Although socioeconomic deprivation was a strong theme it was less  
445 prominent in women's narratives of their early experience of problematic attachment relationships  
446 and traumatic events. Within this study there were relatively few features of women's lives that  
447 were described as promoting their mental health, although it is acknowledged that the sample was  
448 focused on women with experiences of poor mental health. Features that promoted mental health

449 mainly related to the opposite of conditions that undermined women's mental health, including  
450 access to supportive relationships in their communities and in services. Participatory approaches  
451 that focus on the involvement of service users in health research prioritise and value the notion of  
452 expertise by experience in shaping developments that are meaningful and acceptable to those who  
453 use the services. Rather than approach the subject from an objectivist/expert stance [19], the  
454 approach used in this research has sought out expertise from women and professionals which has  
455 the potential to inform future developments.

456       Whilst not offering a generalisable and inclusive range of perspectives, this is a broad and wide-  
457 ranging sample that reflects the depth of difficulties that were experienced directly and indirectly by  
458 mothers and professionals in the area. The data gives voice to the significant struggles encountered  
459 across a sample sought for maximum variation.

460       Data from mothers reflected much of the existing qualitative and quantitative literature in that  
461 there was widespread use of diagnostic terminology. In common with mothers' data, professionals  
462 described working with women with a range of mental health problems, from mild problems related  
463 to conditions of living, to problems that were more severe and enduring in nature. A broad  
464 consensus was found among women and professionals primarily relating to the impact of trauma,  
465 relational experiences and social-material conditions of living. These findings reflect earlier research  
466 that explored the impact on women's mental health of their life experiences including social  
467 disadvantage, lack of social support and distressing life events [20].

468       It is argued that a combination of factors embedded in a context of socio-economic deprivation  
469 has a significant negative impact on women's mental health during pregnancy. Poverty, and in  
470 particular the degree of relative poverty, is a powerful intergenerational form of adversity [21, 22].  
471 The experience of poverty for multiple generations within one family can have ongoing adverse  
472 impacts on family functioning and the lack of resources available to parents, particularly young  
473 parents, to protect their children from the detrimental effects. Families affected by poverty and

474 other forms of socio-economic deprivation for many generations were described by professional  
475 participants within this research.

476 Recent epidemiological research has begun to examine the connections between childhood  
477 adversity and a range of mental health problems. Rather than exploring connections between single  
478 types of adversity and single diagnostic outcomes, research has shown interactions between a  
479 number of mental health problems and different experiences of adversity, particularly relating to  
480 family functioning, neglect, abuse, parental criminal behaviour and parental substance misuse [23].  
481 A further large scale study examined the impact of childhood maltreatment (physical neglect,  
482 emotional neglect, physical abuse, emotional abuse and sexual abuse) on outcomes for latent  
483 underlying mental health problems rather than distinct psychiatric diagnoses [24]. This research  
484 showed that early experiences of maltreatment had significant effects on mental health, across a  
485 range of subsequent problems that were classified as either internalising (mood and anxiety) or  
486 externalising (substance misuse and behaviour) problems. These frameworks were used in  
487 examining outcomes rather than exploring specific diagnostic categories, and showed that these  
488 underlying factors and gendered differences accounted for all variation in the data. This informs the  
489 understanding of findings from the current research, which provides in-depth and detailed accounts  
490 of women's experiences and professionals' perceptions.

491 Recent psychological developments have presented a challenge to psychiatric diagnosis in the  
492 form of an integrative psychological formulation of emotional distress [25]. This approach draws on  
493 attachment theory and links with recent research into neuroscience and is presented by mental  
494 health service users and professionals in collaboration. Rather than employing a theoretical  
495 understanding of biology as the driver of mental health problems, such research has begun to  
496 examine the neurobiological effects of childhood experience and adverse, traumatic events such as  
497 sexual abuse, neglect and witnessing domestic violence [26, 27]. Dillon and her colleagues [25]  
498 argue that most mental health problems originate in adverse life events such as trauma or negative



499 early relationships, thereby forming the vulnerability to adulthood stresses. This is therefore not a  
500 simplistic stress-vulnerability model that relies on an unexplained bio-medical root of a problem that  
501 is triggered by stressful life events, but offers an explanatory basis for these vulnerabilities in  
502 childhood experience.

503 The findings of the current study illustrate a complex and interconnected web of deprivation and  
504 its impacts on the mental health of pregnant women.

505 This research is unique in that it brings together different strands of knowledge and examines  
506 them through different lenses, which ultimately shed light on the complex subject of women's  
507 mental health during pregnancy. The different components of this research have included:

- 508 • Service user involvement at all stages of the research process shaped the study and  
509 findings. This approach facilitated the development of new knowledge through the  
510 advantage of proximity and trust within the researched community.
- 511 • Multiple perspectives during the analysis, including the research and supervisory teams  
512 and peer debriefing throughout
- 513 • Multiple data sources, including data from mothers and professionals, in addition to  
514 different means of generating data in groups and with individuals, provided the  
515 opportunity to juxtapose accounts by service users and professionals talking about the  
516 same issues and embedded in the same context.

517 This juxtaposition illustrates points of agreement between women and professionals who work with  
518 them, producing new knowledge that can inform local developments, and which may be  
519 transferrable to other comparable settings.

520

521

522           Limitations

523   This study was intended to form a bridge between academic/professional knowledge and  
524   experiential community knowledge. Qualitative methods prioritise participant accounts and  
525   language, and using a participatory approach limited the academic and professional dominance over  
526   the process of analysis and interpretation of data. Although there was full involvement of the  
527   research team in all decisions and processes, the research was not wholly participatory, as research  
528   participants only provided data and some contacts for snowball sampling and were not as involved  
529   as the team of co-researchers.

530   Transcripts were not returned to research participants. This decision included the rationale not to  
531   overburden the participants. It was important to give clear consideration about the purpose of any  
532   member checking. Researchers may do this without giving their participants clear instructions about  
533   what they want them to do with the transcripts and as a result, it may not always be a useful  
534   activity. Providing transcripts of group discussions might also have caused a breach of  
535   confidentiality. The decision relating to this matter was taken by the research team.

536   Because the research was conducted within a context of public health and education, there were  
537   necessary compromises for approval from an NHS Research Ethics Committee. These included the  
538   imposition of a hierarchical structure within the research team and professionalising of co-  
539   researchers through training [15]. Additional restrictions arose from the lead researcher's academic  
540   PhD process, including academic timescales and prioritisation of other requirements. There were  
541   also compromises arising from the use of a participatory approach. These included a limitation in the  
542   potential choices of approach to method and analysis. Due to the realist epistemological perspective  
543   of co-researchers and requirement for an approach that did not require extensive theoretical  
544   knowledge of methodology, a realist thematic analysis was considered to be the most appropriate.  
545   This decision was discussed with co-researchers, but driven by the academic members of the team.

546 The use of a participatory approach provided rich opportunities for reflexive collaboration within the  
547 team, generation of data with a comprehensive community sample and a thorough process of data  
548 analysis using constant comparison and in-depth discussion of findings. Transparency in the  
549 reporting and triangulation of data and analysis further supports the credibility of these findings.

## 550 **Conclusions**

551 Pregnant women and the professionals who work with them give complex, detailed accounts of  
552 the conditions that influence maternal mental health. Women's mental health during pregnancy is  
553 not predominantly influenced by individual and bio-medical factors, but is influenced by broadly  
554 contextual factors, covering the following domains:

- 555 • Relational
- 556 • Social/Cultural
- 557 • Material

558 Developing a pathologising and individualised account of women's mental health does not fit  
559 with data generated with and by people who have firsthand experience of mental health problems  
560 during pregnancy. This research shows that developments are needed within services and the wider  
561 communities to support women's mental health during pregnancy including remediation of social  
562 and material deprivation, provision of opportunities for development of services and social support  
563 for pregnant women, and in the longer term, protection from neglect and harm for the children who  
564 will grow up to become future generations of parents.

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