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1 Patient and therapist experiences of exposure therapy in pregnancy: a
2 qualitative analysis of the ADEPT feasibility trial of intensive and
3 weekly CBT

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25

26 [Abstract](#)

27 **Background:** Approximately 15% of pregnant women experience anxiety disorders. Effective
28 treatments exist but their acceptability during pregnancy, particularly regarding exposure, is not
29 known.

30 **Aims:** To understand patient and therapist experiences of time-intensive and weekly exposure-
31 based therapy for anxiety disorders delivered during pregnancy.

32 **Method:** In-depth interviews were conducted with patients and therapists who had taken part in a
33 feasibility trial of predominantly online time-intensive versus weekly CBT in pregnancy. UK therapists
34 and patients were in a primary care setting. Data were analysed using reflexive thematic analysis.

35 **Results:** 45 women participating in the trial and 6 therapists who had delivered the treatments were
36 interviewed. Five themes were developed from the data that showed convergence from therapist
37 and patient perspectives. These were: 'Acquiring tools to navigate the perinatal period'; 'Motivated
38 yet constrained by pregnancy'; 'Having the confidence to face fears and tolerate uncertainty';
39 'Momentum with the need for flexibility'; 'Being removed from the face-to-face world'.

40 **Conclusions:** Exposure therapy is acceptable and helpful in pregnancy and can lead to lasting gains.
41 Exposure is a key element of treatment and needs to be confidently conducted by therapists with
42 perinatal knowledge and expertise. Treatments need to consider the unfolding context of
43 pregnancy. The momentum of intensive therapy can lead to rapid improvements, but is demanding
44 for both patients and therapists, especially fitting round other commitments. Online treatments can
45 work well and are a good fit for perinatal women, but this needs to be balanced with the need for
46 connection, suggesting a hybrid model is the ideal.

47 **Keywords:** anxiety disorders; cognitive-behaviour therapy; pregnancy; exposure therapy; OCD;
48 PTSD; qualitative research

49 **Trial registration:** <https://www.isrctn.com/ISRCTN81203286>

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69 compromise the privacy of research participants.

70

71 Introduction

72 Pregnancy is a time of dynamic physical, emotional and social change. Mental health difficulties are
73 prevalent in pregnancy, with anxiety-related problems being particularly common affecting
74 approximately 15% of women (1). Anxiety related difficulties include a range of presentations,
75 encompassing Obsessive-compulsive disorder (OCD), Post-traumatic stress disorder (PTSD), Social
76 anxiety and Panic disorder. These problems are often accompanied by pregnancy-related anxiety
77 (2). The disorders may exist prior to conception, but for many women the experience of clinical
78 anxiety is experienced as new in pregnancy (3). Women with prior mental health difficulties,
79 additional social stressors and a history of loss may be more likely to experience poor mental health
80 in pregnancy, and this can be compounded by stressful events that occur within the pregnancy
81 including pregnancy complications (4, 5). Persistent anxiety is not only distressing and disabling for
82 women, but can potentially impact on the pregnancy, birth and developing child (6). Large cohort
83 studies have highlighted down the line impacts of antenatal anxiety on children (7) which may be
84 related to both genetic and environmental factors including the intrauterine environment (8). A
85 number of studies have also found antenatal anxiety to be associated with more challenging
86 experiences of postnatal parenting and parental stress (9, 10). Therefore, the need to treat anxiety
87 effectively in pregnancy to alleviate the impact on women and offspring is of clear importance.

88 Women have a strong preference for psychological therapies in pregnancy, possibly due to concerns
89 about teratogenic effects of medications (11). Cognitive-behavioural approaches for anxiety-related
90 problems have a substantial evidence base (12) but their use in pregnancy is much less researched.
91 Studies have emphasised the need to adapt treatments to the perinatal context, with women
92 valuing therapist knowledge and flexibility in delivery of sessions (13). However, high dropout rates
93 are often observed in perinatal treatment studies (14), which may be due to a range of factors
94 including financial and logistical barriers, the increasing physical impacts of pregnancy, non-tailored
95 care, stigma and lack of trust in professionals. Pregnant women often have many other competing

96 demands to manage, such as medical appointments, other caregiving responsibilities and paid
97 employment (15).

98 Time-intensive treatments deliver the treatment protocol in a shorter space of time (typically 1-2
99 weeks) over longer and more frequent sessions, and have been found to be effective in the
100 treatment of OCD, PTSD, social anxiety and panic disorder (16). This form of delivery has been found
101 to be effective and acceptable for women with postpartum OCD (17) and may be a good fit given the
102 timeframe of pregnancy. An effective treatment dose earlier on could alleviate distress in the
103 remainder of the pregnancy and thereby potentially improve a range of outcomes. Therapy
104 delivered in fewer, longer sessions may be easier to manage around other demands and so lead to
105 better adherence and engagement. One key component of therapy for anxiety problems is in vivo
106 exposure to feared stimuli to facilitate new learning (for example to traumatic memories, unwanted
107 sensations, feared situations), which is an important element of treatment efficacy (18). However,
108 therapist reluctance to conduct exposure has been documented in non-perinatal studies (19) and
109 pregnancy is cited as a common reason for withholding or delaying treatment in surveys (20, 21). In
110 one study, almost half of surveyed therapists reported having heard that treatment of PTSD in
111 pregnancy was harmful, and over 30% of therapists reported reluctance to treat pregnant women
112 (21). Therapist beliefs about upsetting or unbalancing the client, or harm to the fetus can be
113 activated, leading to therapist avoidance of this exposure. Concern is founded on the notion that
114 exposure treatments may elevate anxiety, and this may confer a risk to the developing fetus, given
115 the known burden of chronic prenatal stress and anxiety (7). However, this approach disregards the
116 fact that women are already experiencing high levels of anxiety at the start of therapy, and the
117 evidence that anxiety reduces with exposure interventions (22). The common exclusion of pregnant
118 women from CBT treatment trials has compounded this issue. Given the high prevalence of anxiety-
119 related problems in pregnancy and the existence of effective treatments, the perspectives of women
120 and therapists are important to explore. This study aimed to understand the views of women and
121 treating therapists on the experiences of providing and receiving cognitive-behavioural treatment

122 including exposure in pregnancy. It also aimed to understand if time-intensive treatment was a
123 helpful and acceptable adaptation.

124 Method

125 Study design

126 Participants were women and therapists who had been part of a feasibility randomised controlled
127 trial testing two forms of delivery of CBT for anxiety problems in pregnancy, delivered in a primary
128 care setting (23). Women received treatment for a primary diagnosis of an anxiety disorder (OCD,
129 PTSD, Social anxiety or Panic Disorder) and received time-intensive or standard weekly CBT. The
130 majority of treatment took place in pregnancy with a follow up at one month postpartum. Time-
131 intensive CBT involved undertaking an initial 8-10 hours of therapy in the first two weeks of therapy,
132 with subsequent antenatal sessions at monthly intervals, while weekly CBT comprised one hour per
133 week throughout pregnancy. 8-11 hours of antenatal contact time was therefore planned in both
134 arms, with an additional one-hour postpartum follow-up. Additional CBT sessions within service
135 session number limits were allowed if women required further postpartum contact. All women who
136 had taken part were invited to complete a final research assessment at approximately 3 months
137 postpartum and invited to participate in a semi-structured interview as part of this.

138 Women gave written informed consent to take part in the research and interview at the outset of
139 the trial. Recruitment took place between 01/09/19 and 24/09/21 (see Figure 1 for flow through the
140 study). Six out of eight possible therapists were approached to take part – one had left the service
141 and one was conducting the qualitative analysis (FC). All therapists were experienced in working
142 with perinatal women prior to the trial with between 3 and 25 years of post-qualification clinical
143 experience of CBT and were female.

144 Our qualitative approach was underpinned by an interpretivist ideology that aimed to understand
145 experiences of therapy from the perspectives of those who will provide and receive it. Participant
146 interviews were conducted by two female masters level graduate students not otherwise involved in

147 the trial (KS & SJ) who had undertaken qualitative methods training as part of their Masters degrees.
148 At the outset of participant interviews, the interviewer was blind to group participation (but was
149 unblinded as the participants discussed their experiences including the intensive or weekly format).
150 Interviews took place online over Microsoft TEAMS and were recorded for transcription. Interviews
151 were not returned to participants. Interviewees were aware that the interviewers were undertaking
152 the project as part of the process evaluation of the ADEPT trial (24) and were aware of the
153 background of the researchers. Data was analysed by KS, and FC who is an active clinician and
154 researcher in the field of perinatal anxiety and chief investigator of the trial. Regular discussion on
155 data collection and analysis took place with VL who is an expert in qualitative methods and member
156 of the research team. The Consolidated criteria for Reporting Qualitative research guideline was
157 used to support the transparent reporting of the research (25).

158 Ethical considerations

159 A multicentre, parallel-group feasibility randomised controlled trial of standard (WCBT), versus
160 intensive exposure-based CBT (INT-CBT) (1:1) was conducted. A full protocol was published
161 consistent with the SPIRIT guidance (23). The authors assert that all procedures contributing to this
162 work comply with the ethical standards of the relevant national and institutional committees on
163 human experimentation and with the Helsinki Declaration of 1975, as revised in 2008. All procedures
164 involving human subjects/patients were approved by London-Surrey Borders REC (19/LO/0622).

165 Interviews

166 Initial topic guides were developed from the literature, discussions with experts by experience and
167 clinicians working in this field. Possible additional prompts and observations were noted by FC and
168 KS as the trial continued. Due to the timing of the trial, questions were added about online therapy
169 and the impact of the COVID pandemic. The aim of the mother interviews was to explore the
170 experiences of women and to identify any benefits and/or harms from the intervention or
171 participation in the study (see supplementary material for topic guides). The topic guide for therapist

172 interviews was developed with the research team. Data collection and analysis overlapped allowing
173 us to review when we had achieved information power (26)) and collected sufficiently rich and
174 diverse data to answer our research question.

175 Data analysis

176 We conducted reflexive thematic analysis, using inductive codes to develop conceptual themes,
177 using NVivo QSR International qualitative analysis software to help organise the data . The six phases
178 outlined by Braun and Clarke were followed (27). Transcripts were first checked against interview
179 recordings for accuracy. Analysis began with re-reading of transcripts and listening to audio files for
180 immersion. Two of the researchers (KS and FC) read the first three participant transcripts repeatedly
181 to immerse themselves in the data; they then independently developed initial codes and provisional
182 themes and discussed with a third (VL) to examine different interpretations of the data and enhance
183 reflexivity. Reflexive thematic analysis values researcher subjectivity whilst recognising the
184 importance of critically reflecting on the knowledge that is produced. Involving others in the analysis
185 helped the lead author to understand how her personal experiences of pregnancy, motherhood,
186 therapy and perinatal mental health research, and role as PI of the study, might have influenced
187 expectations, assumptions and interpretations. This process was repeated after 10 interviews had
188 been coded. Therapist data was coded by FC and discussed with VL, informing provisional themes
189 that overlapped with the patient data. The provisional themes were discussed in the research team
190 and the perspectives of both groups of participants were amalgamated to develop rich and nuanced
191 overarching themes. Remaining data was coded into themes and sub-themes relating to participant
192 and therapist experiences and attitudes towards treatment.

193 Patient and public involvement

194 Women who had experienced perinatal mood and anxiety disorders were involved in the design of
195 the study, and a lived experience group was established to advise on the progress and results of the
196 study including feedback on qualitative results. This group advised that the interview topic guide

197 was suitable and at the results stage advised that that it was particularly important to take the
198 practicalities of intensive therapy into account for women. A person with lived experience was also
199 part of the data monitoring committee.

200 Results

201 45 women who had participated in the trial (of a total possible 59 randomised) were interviewed,
202 including one woman who had dropped out of treatment. Two women did not have time for the
203 interview but provided quantitative data for the research assessment, the remaining were not
204 available for follow up. Six (of a possible eight) therapists who had conducted the vast majority of
205 intervention in the trial were interviewed about their experiences. All therapists had delivered both
206 weekly and time-intensive treatments (Table 1)

207 *Table 1 about here*

208 Qualitative themes and subthemes

209 Themes were generated using data from both women and therapists. Pseudonyms are provided
210 with disorder and mode of therapy (WCBT=weekly CBT; INT=intensive CBT). Themes and subthemes
211 are summarised in Table 2 and discussed in detail below.

212 *Table 2 about here*

213 **Theme 1: Acquiring tools to navigate the perinatal period**

214 An overarching theme of using therapy as a means to navigate the perinatal period was described.
215 Women spoke of the use of tools and techniques to help with their anxiety, with some mentioning
216 specific examples such as reducing reassurance seeking by internet searches or using stimulus
217 discrimination in PTSD. The normalising of anxiety or intrusive thoughts, allowing women to
218 understand their experiences was mentioned by several as helpful. For those with panic disorder
219 understanding that sensations were not dangerous was important. Women across disorder

220 groupings mentioned mapping out the problem (formulation) as helpful to understanding and
221 changing their thoughts and behaviours. Women liked the individual and flexible approach to their
222 difficulties.

223 *"I definitely did think it was a positive experience for me in terms of addressing my anxiety and she*
224 *gave me some techniques when I'm experiencing particularly like physical symptoms to bring myself*
225 *back into the moment. And that was really helpful. And she taught me some really good techniques*
226 *to help me deal with my anxiety."* (Mary: PTSD-WCBT)

227 Some women described limitations in terms of improvements in some aspects of mental health,
228 highlighting that not all aspects were addressed by the therapy. Many also recognised that therapy
229 was the beginning of an ongoing process and the need to keep actively applying the tools to
230 continue to make progress. Therapists also reflected on the improvements seen in many of their
231 clients.

232 ***Better equipped for birth and parenthood***

233 Several women reported feeling more confident with the birth process and in asking for assistance if
234 they needed, as well as feeling calmer in general. Women had spoken about reducing the impact on
235 parenting as a motivation for seeking treatment and several mentioned benefits overall to their
236 sense of anxiety and confidence as a parent, and that they had become more relaxed. Some
237 described specific strategies learned in therapy that they were applying to parenting.

238 *"I do tend to worry about how good a mother I am. But it has helped me to have strategies, and,*
239 *instead of worrying about it, to spend more time engaging with her."* (Rona: Panic-INT)

240

241 ***Therapy as a means towards improved relationships***

242 Many women mentioned a positive impact of therapy on relationships with partners, either by being
243 involved in the sessions and gaining more understanding of the problem themselves, or, an impact
244 as women started to apply what they had learnt in treatment, for example by partners being less
245 involved in reassurance seeking or indirectly by the mother being calmer in general.

246 *“I think it had a positive effect on my closest relationships, because in pregnancy, especially with*
247 *lockdown as well, they were the people that had to deal with my intrusive thoughts when I shared*
248 *them, and my worries every day.” (Ruby: OCD-INT)*

249 Therapists reflected on the importance of considering partner involvement as the women
250 progressed through therapy.

251 **Theme 2: Motivated yet constrained by pregnancy**

252 ***Pregnancy context as integral to therapy***

253 Therapists and women reflected on ways that the timeframe and context of pregnancy was
254 interwoven with the therapy. Women felt pregnancy was a good time for them to have had the
255 therapy to help them prepare for birth and parenthood.

256 *“to have someone with you as it happens and to say, “I’ve got a scan next week. How do I prepare*
257 *for this?” you know, and to have someone giving you those kind of real-life live tools and tricks made*
258 *all the difference, like rather than having it before you get pregnant or whatever and then trying to*
259 *apply it in a time where, you know, a lot’s going on. So, for me it was really, really helpful having it*
260 *at that point.” (Jemima: PTSD-WCBT)*

261

262 Some women who had had intensive CBT, particularly those with PTSD commented that this was a
263 particularly good time to work on things and make rapid progress, in order to enjoy the pregnancy
264 more.

265 Women spoke about the importance of committing to the therapy, making the most of it and trying
266 to prioritise it at this time. For some, this was recognised more retrospectively. Therapists noted the
267 importance of starting therapeutic work early as possible in the pregnancy, particularly in the case of
268 trauma work. If additional physical issues arose as pregnancy progressed then this made delivery of
269 treatment more difficult as women were potentially increasingly anxious and preoccupied with
270 those, with less capacity to challenge their anxiety and for some, additional maternity appointments
271 to negotiate. Normalisation of experiences was a very helpful tool for therapists and they recognised
272 a need for ongoing reflection on what was normal or excessive in the context of pregnancy.

273 *“It's really important to understand how their pregnancy's affecting their anxiety and to really think*
274 *about how their anxiety is affecting their pregnancy as well because, you know, in my experience to*
275 *date and through the trial and people's anxiety was much higher than it was outside of their*
276 *pregnancy.” (Therapist 2)*

277

278 ***Overcoming physical and social barriers***

279 Many women mentioned tiredness during pregnancy as impacting on the sessions or homework to
280 some extent, particularly as the pregnancy progressed. Having intensive sessions was particularly
281 tiring for some, but for others they felt that this came at the right time before they became tired
282 later in pregnancy. Some, but not all, women felt that being pregnant may have made them more
283 emotionally labile, impacting on both their anxiety and the therapy. Therapists frequently noted
284 that their clients were very busy, and fitting therapy and homework around paid employment was
285 difficult. This was mirrored by comments from women in both intensive and weekly therapy, with
286 intensive placing more demands on women regarding homework tasks. Some thought the intensive
287 was easier to fit because it was short-term but some from this group and many in the weekly group
288 felt that weekly sessions were more practical to fit around work demands.

289 *“I did struggle with the amount of homework I had to do. I think because I was working full-time as*
290 *well, yeah, I struggled a little bit with that, so I'd say that was probably the one thing that I would like*
291 *to have done differently.” (Amal: PTSD-WCBT)*

292 Furthermore, therapists noted that women experiencing additional issues may have found it harder
293 to engage with the treatment.

294 *“You know people are struggling with symptoms and stuff like physical symptoms. I think that you*
295 *need to be a bit more flexible and unfortunately services aren't always very flexible.” [Therapist 2]*

296 Therapists pointed out that stability of circumstances is a necessary condition to use therapy and
297 their impression that those mothers who were also dealing with social issues such as insecure
298 housing did less well. Therapists commented that this was often intersectional, with more women
299 from minority ethnic backgrounds experiencing these problems. They emphasised the importance

300 of flexibility in service provision and cancellation policies to allow women time to trust and engage,
301 of particular importance for groups experiencing marginalisation.

302 **Theme 3: Having the confidence to face fears and tolerate uncertainty**

303 ***Therapeutic relationship as the foundation to exposure***

304 Therapists endorsed the use of exposure techniques with pregnant clients and noted the importance
305 of explaining the rationale clearly and being confident with clients in this part of the therapy.
306 Pregnant women were described as being both more motivated and more cautious than non-
307 perinatal clients, and were mindful of any theoretical impact on the baby, which was sometimes
308 discussed in treatment.

309 *“being really clear on what the work involves and being really confident in how some of the work*
310 *involves exposure and increasing your anxiety and how that's safe is really important in this*
311 *population” (Therapist 2)”*

312 Women themselves repeatedly emphasised the importance of the therapeutic relationship in
313 helping them approach their fears during exposure exercises, and the subsequent value of having
314 done this.

315 *“I feel braver and I feel like I can tolerate the discomfort of ‘oh God is this going to be okay’ more*
316 *because of having done it with support” (Tania: Panic– W-CBT) 52*

317 *“I really hated that with a fiery passion, but I did it and I think it was really useful” (“Sarah”: PTSD- W-*
318 *CBT). Therapists modified exposure according to what the clients could physically and emotionally*
319 *manage and noted a view that conducting exposure exercises very late (e.g after 35 weeks) in*
320 *pregnancy was not advisable, due to the uncertainty surrounding how many sessions remained*
321 *before birth and the need to focus and prepare for this event.*

322 ***Sitting with uncertainty***

323 All therapists noted that the work of supporting exposure sometimes brought up internal therapist
324 beliefs and doubts about harm to the baby. They did not feel that this changed what they did in
325 treatment but was something they had to tolerate in the work, and that this was important given

326 that is also what is being asked of the clients. Sometimes the fears were 'contagious' to therapists
327 who questioned their judgements, particularly where pregnancy complications arose such as
328 gestational diabetes.

329 *"Sometimes you know, we can never guarantee you a pregnancy goes to full term, we can never*
330 *guarantee there won't be complications and I think sitting with that can be really unhelpful, hard,*
331 *sorry, can be really, yeah, difficult I think for us"* (Therapist 4)

332

333 **Theme 4: Momentum with the need for flexibility**

334 ***Momentum of intensive***

335 There was clear feedback from the perspectives of both women and therapists that intensive
336 engendered a fast pace of change and high momentum. Several women spoke of the benefits of
337 intensive sessions, with things moving quickly and efficiently forward without the need for long
338 recaps. Longer sessions allowed for a lot of coverage of material that was picked up quickly in the
339 following session. They spoke of making quick progress due to the amount of therapist contact.
340 Some noted that their motivation and commitment was higher as a result of having frequent
341 sessions. Feeling better in a shorter amount of time was also very reinforcing, and some women felt
342 that this had allowed them to enjoy their pregnancy more by having got through the treatment
343 earlier. By contrast some women in the weekly condition took longer to get going and notice
344 improvements, for example noting that one missed session meant a long time before seeing the
345 therapist.

346 *"it's definitely at the forefront of your mind and to make the most of the time that you've got with*
347 *the therapist. I think the intensity lends itself to really committing to using the strategies, I would*
348 *say."* (Ruby: OCD-INT)

349 Therapists noted a quicker response in intensive CBT and several reported a strong therapeutic
350 alliance due to the large amount of time spent together in the first weeks. Treatment was
351 particularly effective if women had been able to prioritise the therapy and had blocked time out.
352 But women and therapists also noted that for some, more time was needed for homework tasks

353 such as reading and carrying out experiments, and emotional processing of the material between
354 sessions. In addition to noting the challenges for patients, therapists noted the challenges of fitting
355 in session in their diaries and that services would need to have flexibility to offer this as a standard
356 treatment option.

357 *“I think challenges logistically fitting it in like that was the, you know both from my diary and their*
358 *diary trying to just actually fit in sessions quite tricky.” (Therapist 3)*

359 Therapists reflected that for women who may have been more difficult to engage, or were dealing
360 with other issues, having a burst of sessions and an initial ‘therapeutic dose’ may have been very
361 useful.

362 *“She was able to enjoy the rest of her pregnancy a lot more so in that way it was really beneficial.*

363 *Whereas if we hadn't done that, it would have taken, yeah, 10 weeks. And that, yeah, that would*
364 *have meant more time feeling distressed.” (Therapist 1)*

365 ***Being responsive to the individual situation***

366 Therapists noted that in the intensive arm they had to be focused and were less able to respond to
367 concerns as they arose and women who experience weekly treatment often reported this as a
368 benefit of this approach.

369 *“It was actually helpful so it's like obviously I was, I had a bit of a difficult pregnancy, so I was like*
370 *worrying, every week there were obstacles coming up, so I knew I could talk about it in my session*
371 *that I had my session coming up.” (Claire: PTSD-W)*

372 Whilst most clients maintained the gains made during pregnancy in both treatment arms and did not
373 need further postnatal sessions, others did require them, either due to further incidents that then
374 occurred such as a traumatic birth, or if the original issue was related to perinatal loss or
375 bereavement. Therapists highlighted the need for clinical flexibility in these circumstances which are
376 not uncommon in the perinatal period.

377 **Theme 5: Being removed from the face-to-face world**

378 ***Flexibility and barriers of online working***

379 Women had mixed feedback regarding online therapy – many felt that it was more practical around
380 work and the physical demands of therapy. However, for trust and engagement it was helpful to
381 meet the therapist at least once in the treatment where that had been possible. Some but not all felt
382 that the therapeutic alliance was stronger having met face to face.

383 *“we got on well together and things, but I do think it’s probably just one step harder doing it through*
384 *a screen. Having said that, I think any negatives are outweighed by the benefit of not having to go*
385 *anywhere, like just being able to do a two-hour session rather than adding in travel time.”* (Fionn:
386 PTSD-I)

387 This was directly mirrored by the experience of therapists, who felt that the online sessions allowed
388 some to access the service who would not otherwise have engaged.

389 *“And I think if I'd been seeing some of those women in person, they just wouldn't have come, like*
390 *they would have cancelled, they just wouldn't have come to the session. But actually seeing them*
391 *remotely meant that they could come even if it was really difficult to get out that day.”* (Therapist 2)

392 Similarly, online exposure exercises worked well for some, but other women felt that this aspect was
393 more compromised, and that more active work had or would have taken place in face-to-face
394 meetings. This may have been mediated by the impact on the therapeutic alliance, or that more
395 spontaneity occurred in face-to-face sessions.

396 ***Limitations to social connection***

397 The online delivery of the therapy was driven by the impact of the COVID-19 pandemic. Women
398 spoke of missing out on social connection and family support during COVID which made their anxiety
399 and their pregnancies more difficult. Therapists and women noted that being unable to connect
400 directly with others meant that normalising information was not available and that loneliness and
401 isolation in the postnatal period was an additional problem they had to face.

402 Several therapists noted that for some women, particularly those with OCD, the pandemic made the
403 problem more difficult to treat as it reinforced avoidance and made conducting exposure exercises
404 very difficult.

405 *“With OCD, it was a bit tougher to get them to maybe do exposure and because they felt validated*
406 *with the with the COVID concerns”* (Therapist 1)

407 Table 2 about here

408 Discussion

409 This study is the first to explore in detail the parallel experiences of women and therapists of
410 undertaking exposure-based CBT for anxiety problems during pregnancy. We found that women
411 were positive about undertaking CBT during pregnancy and were motivated, often wanting to
412 improve their anxiety and develop tools to reduce any potential impact on their baby. Generally,
413 women reported benefits from having treatment on their mental health and on their functioning
414 more broadly, as well as on relationships.

415 Previous research has identified the importance of tailored treatments in the perinatal period and of
416 treating therapists having specialist knowledge (28). Our findings support this and demonstrate the
417 particular importance of perinatal expertise in delivering exposure-based treatments confidently
418 with pregnant women. Knowledge and understanding of what is normal in the perinatal period is
419 crucial for therapists to be able to contextualise their clients experience, as well as knowledge of the
420 impact of pregnancy complications and their pregnancy history on clients’ needs. Expertise and skills
421 in anxiety treatments is also of obvious importance with the ability to model a tolerance of
422 uncertainty being key for therapists to deliver effective treatment (19).

423 Our findings indicate that the context of pregnancy was of also of importance to how treatments
424 were conducted. Cognitive-behavioural approaches are very active and the logistical challenges of
425 finding time and emotional capacity to undertake treatment is an important consideration.

426 Attendance and completion of homework is related to better outcomes in CBT for anxiety problems
427 (29) . The frequent sessions of intensive CBT can put pressure on time and energy for homework,
428 and additional social stressors are likely to further impact on resources to complete between session
429 tasks (15), which were both highlighted by therapists in this study. Therapist expectations of
430 homework for perinatal women may therefore need to be modified, given the large demands on

431 women's time and capacity (30). Pregnancy can be eventful and ideally the therapeutic context will
432 be responsive to this (30). The need for flexibility in service provision and cancellation policies was
433 an important finding from our results.

434 This analysis indicated that intensively delivered therapy can be demanding for women and
435 therapists, but our study also highlighted that for most women the momentum of this approach
436 meant that they experienced a quick benefit, which was important in the limited timeframe of
437 pregnancy. Therefore, this seemed to be an acceptable approach to treatment delivery. It is possible
438 that having a briefer treatment that is effective early in pregnancy could be particularly useful for
439 those who are managing significant external pressures or subsequent pregnancy complications, that
440 may make adherence to a longer programme more difficult.

441 Although online treatments for mental health problems can be effective, there may be unique
442 considerations for perinatal women (31). Our findings indicated clear pros and cons to online
443 delivery of therapy, with women and therapists offsetting accessibility against engagement. Women
444 highlighted the benefit of having at least some face to face contact, perhaps suggesting an 'ideal'
445 model of hybrid work . This seems important given the key role of loneliness in maintaining perinatal
446 mental health difficulties (32).

447 A strength was that we were able to include the perspectives of a relatively large number of women
448 and their therapists in this study. However, not all women who participated in the trial gave
449 feedback on their experiences which may have led to less representation of more negative
450 experiences. Other limitations were that themes were not checked with participants and the sample
451 overall lacked ethnic diversity. The therapy took place during the COVID-19 pandemic which affected
452 women's mental health and necessitated online or hybrid therapy and is important context for this
453 particular study. However, similar indications of acceptability and efficacy were found in a pre-
454 pandemic face-to-face trial of intensive therapy for postpartum women with OCD (17). Furthermore,
455 many talking therapies services are continuing to provide online and hybrid delivery, which may be

456 particularly popular with perinatal women, and so results may align well with current (post-
457 pandemic) clinical practice.

458 In conclusion, our study provides initial evidence from a real-world setting that exposure-based
459 treatments were generally considered acceptable and useful by pregnant women. The effectiveness
460 of these therapies should continue to be rigorously tested in definitive trials across a number of
461 settings. Intensive therapy is a demanding but rewarding format of CBT delivery that could be a
462 good fit in the antenatal context. Therapist perinatal expertise and service flexibility is key to the
463 successful delivery of CBT in pregnancy.

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560 Table 1: characteristics of participants

	Weekly CBT N=23	Intensive CBT N=22
Women with anxiety disorder		
OCD	7	6
PTSD	9	8
Social anxiety Disorder	2	3
Panic Disorder	5	5
First time parent (%)	63.6	56.5
Ethnicity		
White	19	17
Black	1	1
Asian	1	1
Mixed	1	3
Age (mean; sd)	33.1 (4.2)	31.1 (10.8)
Therapists (all female)		
Clinical Psychologist		2
Counselling Psychologist		1
CBT Therapist		3

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562 Table 2: Themes and subthemes of qualitative analysis

Theme	Subthemes
1. Acquiring tools to navigate the perinatal period	<u>Better equipped for birth and parenthood</u>
	<u>Therapy as a means to improve relationships</u>
2. Motivated yet constrained by pregnancy	<u>Pregnancy context as integral to therapy</u>
	<u>Overcoming physical and social barriers</u>
3. Having the confidence to face fears and tolerate uncertainty	<u>Therapeutic relationship as the foundation to exposure</u>
	<u>Sitting with uncertainty</u>
4. Momentum with the need for flexibility	<u>Momentum of intensive</u>
	<u>Being responsive to the individual situation</u>
5. Being removed from the face-to-face world	<u>Flexibility and barriers of online work</u>
	<u>Limitations to social connection</u>

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