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Research Article

Implementing routine assessment of perinatal anxiety: case studies

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Abstract

Background: During pregnancy and the first postnatal year, a substantial proportion of women experience perinatal anxiety, which is associated with increased risk of adverse birth, maternal and child development outcomes. Identification of perinatal anxiety is recommended in various countries, but there is a lack of consensus on the most effective, acceptable and feasible measure to use. The Methods of Assessing Perinatal Anxiety study previously found the Stirling Antenatal Anxiety Scale to be diagnostically accurate and acceptable to women.

Objectives: This study aimed to determine the acceptability and feasibility of implementing new assessment of perinatal anxiety in healthcare services.

Design and methods: Implementation case studies of perinatal anxiety assessment using the Stirling Antenatal Anxiety Scale in three National Health Service sites in the United Kingdom. Semistructured interviews and focus groups were conducted before and after implementation with healthcare professionals working in maternity, primary care and psychological services that had contact with perinatal women. Preimplementation data collection was used to develop an implementation and training strategy for each site. Interviews and focus groups were conducted with the same participants post implementation. Data were analysed using framework analysis and a combined inductive-deductive approach.

Setting and participants: Two National Health Service trusts in England and one National Health Service health board in Scotland. Participants were healthcare professionals, including midwives, health visitors, clinical psychologists and mental health nurses, who used the scale during the implementation period. Other stakeholders such as service managers and team leads were also interviewed. Sites were selected to represent different types of service and pathways of care. The sample comprised 37 participants at preimplementation and 27 at the postimplementation stage.

Intervention: Implementation of new assessment of perinatal anxiety in National Health Service services.

Results: At the English sites, one focus group and two interviews were conducted at site E1, and five interviews at site E2. At the Scottish site, two focus groups and six interviews were conducted. Evaluation findings were categorised into 5 themes (experience of change in practice, barriers/facilitators to implementation, acceptability, feasibility, improvements to implementation strategy) with 16 subthemes. The experience of introducing a new assessment tool in clinical practice was generally seen as positive, with the scale enabling more focused conversations with women about their symptoms and different types of anxiety. Potential barriers to conducting assessments included women not having English as first language and stigma towards anxiety in some cultures. The scale overall

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was acceptable to healthcare professionals. Recommendations to improve the implementation strategy included adding the tool to patients' electronic notes and getting wider buy-in from senior management.
Limitations: Healthcare practitioners mainly used paper versions of the scale, while most National Health Service services are moving towards patients' electronic notes. Only 73% of participants were interviewed at the postimplementation stage. Variation in clinical pathways and services means results may not be generalisable to other settings.
Conclusions: Implementation of a new measure of perinatal anxiety was perceived positively overall.
Future work: Further research should explore the use of a digital version of the tool and translated versions. Replication in National Health Service services with different care pathways is also recommended.
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Background

Perinatal anxiety affects a substantial proportion of women[1] and may have adverse effects on women and their children if not detected and supported appropriately.[2] Evidence suggests that approximately one in five women meets the criteria for at least one anxiety disorder during their pregnancy and throughout the first year after birth,[3] with self-reported anxiety symptoms being more prevalent.[1] Possible detrimental impacts for both mother and baby have been shown to include increased risk of other mental health problems, such as postnatal depression, as well as increased likelihood of preterm birth and poorer developmental outcomes for the child.[4,5] Perinatal anxiety is a broad term that can refer to symptoms of anxiety, or anxiety and related disorders, such as generalised anxiety disorder, panic and phobias,[6] as well as pregnancy-specific fears around labour and giving birth, the health of the baby and becoming a parent.[7] Here, we use it to refer to both anxiety disorders and pregnancy-related anxiety.

Considering the high prevalence of perinatal anxiety and possible negative outcomes for mother and baby, clear assessment and treatment pathways might prevent, or at least reduce, the impact on mother and child.[8] Consequently, various countries have implemented routine assessment of perinatal anxiety in recent years. The American College of Obstetricians and Gynecologists recommended assessment of symptoms of depression and anxiety using a validated tool at least once during the perinatal period,[9] most commonly the Edinburgh Postnatal Depression Scale, which includes three items that appear to identify anxiety.[10] In the UK, clinical recommendations by the National Institute for Health and Care Excellence suggest healthcare professionals (HCPs) consider using the Generalised Anxiety Disorder scales, two-item version (GAD-2), followed by the seven-item version (GAD-7), if anxiety is indicated.[11,12]

The variation in clinical recommendations highlights the lack of consensus on which assessment measure should be used for routine assessment of perinatal anxiety. There is evidence, for example, that the GAD-2/7 may not preserve its diagnostic accuracy when used with perinatal women.[13,14] In addition, there is little research directly examining the acceptability of different measures to women and healthcare practitioners. The Methods of Assessing Perinatal Anxiety (MAP) study (www.mapstudy.org) aimed to determine the acceptability, effectiveness and feasibility of different MAP. The MAP study assessed five versions of four different questionnaires to detect anxiety symptoms: the GAD-2; GAD-7;[12,15] Whooley Questions;[16] Clinical Outcomes in Routine Evaluation-10 (CORE-10);[17] and Stirling Antenatal Anxiety Scale (SAAS).[18] Previous MAP findings showed that women found all these questionnaires broadly acceptable, although the GAD-2/7 performed least well in this regard. Two questionnaires were most effective at identifying anxiety disorders when compared to a structured clinical interview: the SAAS and the CORE-10.[14] Further consultation with stakeholders showed women found the SAAS more relevant, easy to complete and inclusive, while HCPs preferred it based on its perceived clinical utility and ease of administration and scoring.

Objectives

The current study therefore implemented assessment of perinatal anxiety using the SAAS in three NHS sites to determine the acceptability and feasibility of implementing a new perinatal anxiety assessment in healthcare services.

Methods

Study design and setting

Case studies of implementing perinatal anxiety assessment using the SAAS[18] in three NHS trusts or boards. The study design was informed by Participatory

Action Research (PAR), a group of research methodologies which aim to implement change with active engagement of coparticipants. Specifically, we used the Promoting Action on Research Implementation in Health Services (PARIHS) approach, which offers a framework to guide implementation of new initiatives in health services and use PAR to evaluate these.[19]

Two NHS trusts in England (E1, E2) and one health board in Scotland (S1) took part in the implementation. Sites were selected to represent different types of services and pathways of care, as well as pragmatic considerations (e.g. local to research team, previous collaborative links). Details about the three sites are provided in *Table 1*.

The study had three stages: (1) preimplementation data collection and context mapping; (2) production of tailored implementation strategies followed by a 3- to 5-month phase of implementing SAAS perinatal anxiety assessment; and (3) evaluation of implementation. Preliminary discussions at sites enabled the research team to identify key stakeholders within each site and potential study participants.

Participants and recruitment

Purposive sampling was used to recruit professionals from a range of roles in maternity, primary care, psychological services and other relevant services where health professionals undertake perinatal anxiety assessment. Health professionals included midwives, health visitors, clinical psychologists and mental health nurses. Other stakeholders such as service managers were also interviewed. A target sample of approximately 12–15 participants per site was deemed sufficient based on data saturation in guidance on qualitative studies.[20]

Semistructured interviews and focus groups were conducted with participants before and after implementation, and efforts were made to interview the same individuals at both stages. All interviews and focus groups were conducted remotely by Cassandra Yuill, Andrea Sinesi and Georgina Constantinou. Information collected at baseline was used to produce implementation strategy and training at each site. This consisted of training sessions before the implementation with HCPs about the SAAS and evidence to support its use, the provision of paper copies of the scale and a one-page leaflet with instructions on administration and scoring, and continued monitoring during the implementation to troubleshoot potential issues. This phase was instrumental in assessing the current care pathways and understanding how the SAAS would be incorporated into the service. For all sites, the SAAS was introduced alongside the current clinically recommended measure and not in replacement of it. In addition, as sites had an electronic maternity system that could not incorporate local changes, the decision was made to introduce the SAAS as a paper measure. The currently recommended assessment measures, the GAD-2/7,[12] are currently incorporated in the electronic maternity system.

Sites varied in their approach to introducing this measure into practice. While most participants asked women to complete the SAAS themselves, a few incorporated this into conversation, asking the questions and recording responses. A specialist perinatal mental health service at site S1 sent the measure to women by post prior to their appointment.

Focus groups and interviews were conducted after the 5-month implementation period (3 months in site E2) to evaluate the implementation. The findings from this evaluation are presented below.

TABLE 1 Summary of participating sites

Site E1	Site E2	Site S1
England site (E1) is a secondary care NHS trust which serves London. Community midwives typically carry out perinatal mental health screening at antenatal booking appointments. Midwives are supported by specialist perinatal mental health midwives who can advise on the best pathways for care. Depending on severity of anxiety and depression symptoms, referrals may be to the general practitioner (GP), local Improving Access to Psychological Therapies service for talking therapies or specialist perinatal mental health service through a dedicated team.	England site (E2) is an NHS community healthcare trust which serves a population across London. The health visiting team (family nurses) carry out perinatal mental health screening at antenatal appointments, the new birth contact and 6- to 8-week postpartum review.	Scotland site (S1) is an NHS health board. Perinatal mental health screening is conducted by community midwives. If women have anxiety, an advanced specialist midwife in Perinatal Mental Health supports decisions around the appropriate pathways of care. Referral options include referral to GPs and provision of online cognitive behavioural therapy. Specialist services include the Maternity and Neonatal Psychological Interventions service and the Perinatal Mental Health team.

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Equality, diversity and inclusion

In consideration of equality, diversity and inclusion, participants were recruited from NHS trusts/health boards with diverse geographies (e.g. urban vs. rural) and sociodemographic characteristics.

Measures

The Stirling Antenatal Anxiety Scale

The SAAS is a 10-item scale specifically developed for the assessment of perinatal anxiety and includes both general and pregnancy-specific anxiety items.[18] Although originally developed to assess antenatal anxiety, the measure has been subsequently validated for use in the postnatal period.[14] It is scored on a 0–4 Likert scale based on frequency of symptoms, with higher scores indicating more severe anxiety symptoms. It has a possible range of 0–40, and a cut-off of 9 or above was identified as most accurate for identifying women with anxiety disorders, with a sensitivity of 83.5% and specificity of 72.7%.[14]

Preimplementation topic guide

The topic guide for preimplementation data collection was based on the PARIHS framework[19] and included questions on perceptions of the specific needs, priorities, policies, resources and problems in relation to perinatal anxiety assessment in each site; and whether routine assessment was perceived as sustainable based on priorities of each setting. The purpose of preimplementation data collection was primarily to inform the development of training materials for the implementation of the SAAS and create targeted implementation strategies for each site. Thus, findings from the preimplementation phase are not reported here.

Postimplementation topic guide

The interview topic guide for the postimplementation evaluation focused on the acceptability of the new assessment to healthcare practitioners and the feasibility of implementation. Evaluation of acceptability was informed by a theoretical framework of acceptability, which outlines seven dimensions of acceptability: affective attitude, intervention coherence, self-efficacy, perceived effectiveness, opportunity costs, burden and ethicality (*Table 2*).[21]

Feasibility of implementing a new measure for assessing perinatal anxiety in clinical practice was examined by questions assessing the knowledge and evidence needed to support the implementation, whether the resources healthcare practitioners need were available to them, and determining whether implementation of the new measure was experienced as having an impact on staff or services. Additionally, the topic guide asked for views on general experiences of implementing the new perinatal anxiety assessment, barriers, facilitators and usefulness of the approach used, any recommended changes to the approach and views on sustainability.

Data analysis

Interviews and focus groups were transcribed verbatim by an independent transcribing service and analysed using framework analysis. A combined inductive–deductive approach was used to enable specific research questions to be addressed as well as allowing unexpected or new themes related to the implementation of the SAAS to be identified. Analysis was conducted primarily by two researchers (Andrea Sinesi and Georgina Constantinou). Examples of researchers' reflexivity practices included ongoing review for disconfirming evidence for each identified theme, and a third researcher (Rose Meades) checking for consistency on 10% of data.[22] Additionally, because the new scale was developed by some of the authors, all coauthors were asked to check for any biases in data analysis and reporting. Researchers Andrea Sinesi and Georgina Constantinou initially read the transcripts to familiarise themselves with the data and subsequently

TABLE 2 Theoretical framework of acceptability dimensions

Dimension of acceptability	Definition
Affective attitude	How an individual feels about the intervention
Intervention coherence	The extent to which the participant understands the intervention and how it works
Self-efficacy	The participant's confidence that they can perform the behaviour(s) required
Perceived effectiveness	The extent to which the intervention is perceived as likely to achieve its purpose
Opportunity costs	The extent to which benefits or values must be given up to engage in the intervention
Burden	The perceived amount of effort that is required to participate in the intervention
Ethicality	The extent to which the intervention has good fit with an individual's value system

used inductive coding to identify possible themes in the data. The framework method employs categories which are jointly developed by the researchers.[23] These categories were determined by the research questions and informed by the topic guide; assessing experience, barriers and facilitators, usefulness of the implementation strategy, acceptability, feasibility and recommendations. Once the framework had been determined, the researchers continued to code the remaining transcripts, applying the decided analytical framework. Each of the categories were summarised and reported with supporting quotes of participant experience.

Results

Twenty-seven participants took part in the evaluation interviews and focus groups after the implementation period. The most common job role was midwife (*N* = 12, 44%), followed by community midwife (*N* = 4, 15%), specialist perinatal mental health midwife (*N* = 3, 11%), team lead (*N* = 2, 7%), obstetrician (*N* = 2, 7%), health visitor (*N* = 2, 7%) and clinical psychologist (*N* = 2, 7%). At the Scottish site, 15 participants (56%) took part in the evaluation. This included two focus groups with six and three midwives/community midwives, respectively, and six interviews (two clinical psychologists, one specialist perinatal mental health midwife, one obstetrician, one team lead and one community midwife). At the first English site, one focus group was conducted with five midwives, and two interviews with a specialist perinatal mental health midwife and an obstetrician. At the second English site, five interviews were conducted (one midwife, two health visitors, one obstetrician and one team lead).

Analysis identified 5 themes with 16 subthemes. These are shown in *Table 3* and outlined in more detail below.

Experience of change in practice

Experience of the implementation

Overall, the experience of introducing the SAAS assessment in clinical practice was seen as positive and useful to participants' practice. The assessment tool was reported to be well understood by patients and helped health professionals focus their work on specific areas. The simplicity of the questions was reported frequently by all sites, with ease of use for professionals and individuals key to their experience. Several midwives at each site stated they would like to continue to have the tool available to them.

TABLE 3 Overview of the themes and subthemes

Themes	Subthemes
Experience of change in practice	• Experience of the implementation • SAAS facilitating conversations • SAAS identified pregnancy-related anxiety • Completing the SAAS (self-report vs. electronic records)
Barriers and facilitators to implementation	• Time available • Support from senior staff at early stages
Acceptability	• Affective attitude • Intervention coherence • Self-efficacy • Perceived effectiveness • Burden • Ethicality
Feasibility	• Knowledge and evidence to make this change in practice • Resources for implementation strategy • Impact on staff or services
Improvements	• Sustainability of change in practice

> *I really like the tool, I find it really easy to use … and I think patients understand it well, and I do think it picks up on areas of anxiety specific to our job that the [other measure] doesn't … which makes sense because it's more focused, and women like the way the questions are worded … the plan is just now to maintain it.*
>
> *S1, INT3*

A few midwives stated that initially they were concerned about this change in practice and that this was due to not fully understanding what was expected of them and how it may change their tasks. This concern changed once they had a chance to use the SAAS in practice and become confident with what was being asked of them.

> *[I]nitially we were a little like, difficult to create a little bit more paperwork, it was going to take up a lot of time in an appointment when we're already stretched with what we need to do in, in the hour slot. But … I think once you find your way and you have your own routine and pattern it kind of fits in quite nicely. So … no major, no major concerns on that front.*
>
> *E1, INT-001*

Stirling Antenatal Anxiety Scale facilitating conversations on symptoms and disclosure

A number of midwives and other HCPs reported that using the SAAS was conducive to facilitate conversations around symptoms, and that they found that women were more likely to disclose issues when discussing their answers to SAAS questions.

> *I can't really explain it, but your tool was just more specific and just allowed them to kind of open up.*
>
> *E1, FG1-P3*

> *I thought it was good in terms of when you ask people about their mental health they don't really tell you much but when they're going through the scale, a lot of the girls were coming up as having a high score and they maybe wouldn't have disclosed a lot of that beforehand.*
>
> *S1, FG1, PAR1*

Stirling Antenatal Anxiety Scale identified pregnancy-related anxiety

The SAAS was perceived as particularly effective in understanding the nature of symptoms and whether they were related to pregnancy-specific anxiety.

> *[S]ometimes you have these general conversations about the mental health, when actually it's not always that helpful … if you're going to ask some questions you want them to be quite specific and targeted towards the, er, the like, the anxieties around birth, around kind of pregnancy or whatever, so it, it helps to have them doing something [like the SAAS].*
>
> *E1, FG1, P2*

> *I thought it was good for antenatal anxiety, because it's letting you pinpoint, they don't just suffer from anxiety that they've always had or whatever, but then they can really chat about what is it about your birth that you're stressed about.*
>
> *S1, FG1, PAR4*

Completing the scale (by women or health professionals)

Most midwives reported that women were more likely to disclose and discuss issues when they were asked to complete the scale themselves, as opposed to when they were asked questions by the HCP which was recorded in the electronic records. However, some also noted that having the SAAS on the electronic maternity healthcare record system ensured that it was completed and could not be missed during busy appointments.

Thus, using the paper version of the SAAS had advantages and disadvantages. It allowed the women to complete it themselves, feel they had more privacy to consider their responses as they marked their answers and feel open to discuss the questions with the professional as they completed it. However, paper copies had to be scanned into the electronic record of the patient's notes, women could take longer to respond than if asked the questions and professionals could forget to offer the measure at all.

It was suggested that answers were more honest when women completed the measure themselves, and this was deemed important. When asked why some health professionals chose to ask the questions themselves, reasons included that they did not receive instructions on how it should be done or that it seemed more natural to incorporate the questions into their usual discussions.

> *I personally gave it to her to finish herself, because that was the other thing that I was going to say, sometimes when you're asking them about their mental health, they don't want to actually say I am struggling … Yeah, I found it helpful that they could, I don't know, it's kind of like passing someone a note, isn't it, like it's a bit easier to write it down and not have to almost, not, not*

admit it, but admitting it at the same time that you're struggling with something.

E1, FG1-P2

I certainly didn't like doing it over the phone. Virtual is a totally different experience, but then, I, I, one thing is um, often just having antenatals over the phone is not ideal in any way and you're not getting, especially after something um, as sensitive as the SAAS, and you want to have a bit of, of body language, just a little bit of feedback and you don't know what that girl is thinking at the end of a phone.

E2, INT-028

Barriers and facilitators to implementation

Barriers

Participants identified several barriers they experienced when implementing the assessment. These included time available in appointments to cover an additional assessment, length of the tool being longer than previous tools in use, and concerns that the tool generated more discussion but not having the necessary time to have these discussions with women. For site E1/E2, women not having English as their first language was a notable barrier. Stigma surrounding anxiety in some cultures and the presence of other people (e.g. partners, children) and the use of a translation service were also reported as potential barriers to disclosure.

[T]here's the whole thing with ethnic minorities and not speaking English. So, um, having it, particularly if you're giving it to the woman. then you've got a barrier that, that non-English speaking women might not complete, and, you know, we know women from certain ethnic backgrounds have more difficulty because the cultural acceptance of mental health.

E1, INT-005

While language barriers were not mentioned by participants at S1, they did highlight the influence of partners on completion of the assessment which was recognised as not necessarily a negative factor.

When we were having the patients fill it out themselves at booking a lot of the times, if you ask the questions they'll just say, oh no I'm fine but when they were going through it themselves, they were often looking at their partner and saying do you think I've been like this and opening up a conversation with them as well.

S1, FG1, PAR6

One issue that was highlighted by several midwives was that referrals to other HCPs [e.g. general practitioner (GP), perinatal mental health teams] were sometimes turned down. Health visitors working in the community noted there was no in-house service that could be offered which made referrals challenging. This issue was not specific to the SAAS but was a problem with other scales too.

[I]t's great you're doing an assessment and … you'll pick up something, but then … you've got no control over the other services, because they're more specialised or the GP, because we don't provide anything. If we had a provision, that's different, but we don't. But there isn't the provision, within the service to do more.

E2, INT-050

I agree about the GPs, the GPs just send them back to us and we can't prescribe or do anything.

S1, FG2, PAR3

Facilitators

Facilitators to assessment included: the midwife/other HCP having a proactive approach; having paper copies of the tool available; getting a good response from women completing the SAAS; the simplicity of the tool for the HCP and women and being confident with their 'pitch' about why the assessment is offered to the women. In addition, there were several aspects of support from management which HCPs deemed important in facilitating assessment. These included: being advised to incorporate the SAAS into their appointments in their own style, reminders that being confident explaining the SAAS and practising using it would improve its integration into their usual care and finally ensuring that senior staff were available to support if they had any questions about the tool, particularly at early stages of the implementation. The possibility of opening up a discussion with women and the identification of those experiencing specifically pregnancy-related anxiety were key motivators to adopt the tool in practice. These themes are covered in more detail in *Acceptability*.

Acceptability

Affective attitude

Attitudes were generally positive towards the SAAS. Participants noted that it helped identify pregnancy-specific anxiety and facilitate conversations around symptoms better than the GAD-2 tool recommended in UK clinical guidelines. While not all HCPs were happy about using a new tool initially, this perception changed after their understanding of the tool improved, and they had a chance to integrate it into their practice. After completing

the implementation period, several participants reflected to say that they preferred the SAAS to the clinically recommended tool.

> *Erm, I'll be honest at first I did kick up a fuss a bit. Just because it's … new, and I didn't really understand it, but then when I actually saw the, the questionnaire, it was actually helpful because what we used to before was just kind of like generic.*
>
> *E1, FG1-P1*

Intervention coherence

Intervention coherence refers to the extent to which HCPs understand the new assessment and how it works. Participants found the training sessions prior to implementation useful. However, not all HCPs at sites could attend these sessions, and this difficulty arranging training for a team which has conflicting schedules was discussed. The use of recordings of the training sessions was well received to alleviate this issue. However, more detailed informational videos about a procedure to follow for administration of the SAAS would have been welcomed.

> *There were some … training sessions, but again trying to get everyone together at the same time wasn't possible so we were then sent some videos. I think a video or some videos, I can't remember, and that more told us just about the studies, as opposed to giving them strict rules about how to do the, the, erm, research.*
>
> *E1-FG1-P2*

Participants' understanding of how the assessment should be carried out was varied. Many stated they received clear instructions and felt this was explained well to them, whereas others did not remember being given specific instructions. Participants would have liked more clarity on whether the assessment should be completed by the women themselves or incorporated into a conversation. In addition, several participants did not understand how to score the assessment, the threshold for referral and what action they should take. At times, HCPs were unsure about what referral was appropriate based on specific scores.

> *I might be wrong, but I don't remember getting kind of specific rules if you like about how it was meant to be done.*
>
> *E1-FG1-P2*

> *I found it difficult to know what to do with the score because there wasn't like a pathway in place to say if her score is this, this is where you go with it. So I kind of felt like we didn't have a, like a guide to where to go with the score.*
>
> *S1-FG1, PAR1*

Self-efficacy

Overall, most participants' self-efficacy to implement the measure was high, with many stating they felt confident to offer and conduct the assessment and thought it would be achievable to implement into their practice. Participants commented that using the new scale made it easier to identify women, and HCPs felt more confident in discussing symptoms. A clinical psychologist indicated that she found the measure useful for identifying different aspects of perinatal anxiety.

> *They've been easier to capture and I feel like I'm more confident in speaking to them [women] about it, because I know, I know it's in more depth so I can know more about why they're anxious and it's easier for them to kind of delve further into it?*
>
> *S1-FG1, PAR3*

Perceived effectiveness

The majority of HCPs stated that the assessment seemed effective for them to use, that it identified specific anxieties and that they were able to provide women with support options early on in their maternity care. Overall, the SAAS questions were considered more effective than the clinically recommended questions, which were seen as vague and non-specific to the perinatal period. The SAAS was thought to provide a more detailed overall picture of symptoms.

> *[T]hey have much more information to give me than they normally would before SAAS was present … because they have explored further with the use of the SAAS questions it's allowed me to, I don't need to ask as much, they're already providing me much more of the context.*
>
> *S1-INT5*

This was also discussed in relation to the number of referrals made and where these referrals may be made, with more detailed information being useful to limit referrals for only those who really needed them. However, HCPs commented that the SAAS identified women who they thought would not have been picked up with previous screening measures.

Several midwives commented that higher scores in early pregnancy were commonly due to worries around the early pregnancy scan, but these tended to decrease as pregnancy progressed. A few participants stated that they

would want to see the results of the study and further evidence to be reassured it was effective.

> *[B]ecause it was their booking appointments (…), I found that quite a few people did score quite highly and I just had to reassure them that it's about the overall picture and it's very understandable within context.*
>
> *E1-INT-021*

Burden for healthcare professionals

Overall, using the new assessment was not considered a burden by HCPs. However, participants discussed factors that should be considered to ensure successful implementation. The first was administrative, in relation to HCPs using paper versions of the SAAS and having to scan these into the patients' electronic notes. However, it was acknowledged that this problem could be avoided by having the SAAS added to the electronic patient record system. The length of the scale was also discussed as a potential burden, but participants also noted the benefits to its specificity to pregnancy and the usefulness of using the time women spent completing the assessment to do other admin tasks.

> *I think because it was obviously paper it was, erm, a bit, it was extra work for the admin worker to then scan it onto the patient's notes and things like that.*
>
> *S1-FG1, PAR2*

> *Absolutely not [when asked about burdens], and I think for, for women it's so helpful to actually look at the questions that are specifically linked to their pregnancy and their anxiety, it gives them … a bit of an insight of what's going on for them. I think the number of questions was perfect, there was no sense of … oh, it's just getting, you know, dragged out kind of thing. … it was pretty clear, and the questions were very easy to understand, there was no confusion around the, the questions.*
>
> *S1-INT2*

In relation to this, participants raised the importance of the assessment replacing the clinically recommended tool, rather than being an additional assessment. This was important to minimise burden and free up time in appointments. HCPs also thought it would be more burdensome if the assessment had to be done frequently at multiple stages in pregnancy.

> *I only think it would become a bit more of a burden if the frequency of having to do it was say like it was every appointment or every other appointment you've got to do this tool when actually we've already got so much to cover. I guess …*
>
> *E1-FG1-P2*

Opportunity costs

When asked whether the benefits of using the new scale outweighed the costs, study participants indicated that they considered the scale useful, and despite the measure including 10 items, this was not a concern because it allowed them to explore symptoms in more detail.

> *No, I think they were very minimal [any costs]. Yes, it was an additional scale but it's very, very easy to administer, very straightforward, very quick to score up and very useful information so the costs are far outweighed by the benefits.*
>
> *S1-INT1*

Participants valued the benefits they had experienced, such as the assessment leading to more in-depth conversations and being able to detect anxieties earlier.

> *I think the benefits are, is that you can pick women up earlier in pregnancy and get them hopefully support, whether that's from the maternity staff or whether that's from things like talking therapy in the community earlier on in pregnancy so it doesn't build up.*
>
> *E1-INT-005*

Ethicality and inequity of access

Participants gave examples of when they decided not to use the SAAS during the study. At one site, the main reason was if women did not speak English because of concerns about translating the scale either through a partner or translator. Although a translator was available, participants were concerned about trusting the translation and the pressure on women of disclosing their feelings in the presence of others. The additional time needed to facilitate this was also a factor.

> *So that was quite a hindrance and I probably didn't give it [translation of the assessment] a lot of the time with people that didn't [speak English] … I probably did it once or twice with someone that didn't speak English and then I just felt, I didn't believe it, like it was going to be beneficial to either of us.*
>
> *E1-FG1-P2*

Participants discussed that this may lead to unfair exclusion of these women to support for anxiety, and that it is important the tool is translated into women's

preferred languages, although arguably this issue is not specific to the SAAS.

> *I was just thinking about the impact on being able to use those tools with let's just say British people and maybe the disparity it might cause in the support for other ethnicities if they're not able to use it or understand it. Of course that means, you know, a certain group of people are getting much more targeted mental health support. And people from other ethnicities who actually probably do need that mental health support probably not being identified at the same rate or, you know, as easily as other groups.*
>
> *E1-FG1-P4*

Other circumstances included when there was not enough time or when HCPs were already behind schedule, which made them less likely to conduct the assessment. Finally, HCPs were also concerned about conducting the assessment in the presence of partners or children over 7 years of age. As the tool was more explicit with its questions, some midwives decided it was not appropriate to discuss in front of others. In addition, in cases where a woman was outwardly showing signs of severe anxiety, or the professional was aware of complex previous mental health problems, they were unlikely to conduct the assessment as they were concerned that further questions were not necessary, may cause difficulty for the women and a prompt referral to the perinatal mental health team would be better placed.

> *I also didn't like [using the SAAS], when I knew there was a history and I saw the records that there was a history of anxiety and, and depression.*
>
> *E2-INT-028*

> *I would absolutely believe that they would not be able to say, in front of their partner, unless it was something both of them had thought about … it is something I remember thinking way back in the beginning, I would never have done the SAAS with, with a partner there.*
>
> *E2-INT-028*

Participants also anticipated the SAAS would lead to increased numbers of women needing referral to perinatal mental health services. They were unsure whether the service could sustain this need for increased support. This was an ethical consideration as it was considered a problem if those identified as having anxiety had to wait too long and/or did not have access to the support they needed. However, participants appreciated that more effective identification may lead to increased support options being available in the future, if the service can evidence a need for them as a result of the assessment.

> *[I]f we are picking up more people, then, yes, that does increase the burden, but equally it makes the case for more resource potentially, doesn't it? So, you know, it's a bit chicken and egg, isn't it?*
>
> *E1-INT-005*

Feasibility

Knowledge and evidence to make this practice change

Several HCPs commented that they would like the SAAS to have cut-offs for different levels of anxiety (e.g. mild, moderate, severe) to help them decide on the most appropriate management and referral strategy. The presence of HCPs such as specialist midwives in perinatal mental health was also indicated as beneficial in supporting HCPs with decisions about symptoms management and referral pathways.

> *Erm, I think that's what's really important is … there's a cut-off score, but so what. So, what do we do with it thereafter? The midwives, in my experience, really want to have a much more prescriptive pathway which is difficult when you're looking at mental health because it's not prescriptive. (…) something that would allow them to understand what is mild, what is more severe, erm, to help prompt them on what they should be doing. Having either a specialist service or a specialist midwife in the background who can help them to come to those conclusions and help support them from a consultancy perspective on mental health management in perinatal period is essential. Erm, they need someone in the service who can offer them that …*
>
> *S1-INT5*

Resources for effective implementation

Some HCPs indicated that they would have both paper and electronic versions of the SAAS, so that women can be given a copy to complete as a self-report and scores could subsequently be inputted onto patients' electronic notes for record keeping. It was suggested that the questionnaires could be sent to the individual ahead of the appointment via an existing maternity app or text message to save time. Making sure that training on use of SAAS is attended by everyone implementing the scale was also seen as instrumental to successful implementation. HCPs in site E1 also noted that it would be useful to have resources (e.g. psychoeducation materials on anxiety)

that can be provided to the individual while they wait for a referral to manage any concerns that may arise for the women once she had scored highly.

> *I do wonder if long term, particularly for the midwives; I've not had a lot of overlap with the midwives that are using it, but if it was available as a clickable form on [electronic record], that would … that definitely would save everyone a lot of time.*
>
> *S1-INT 3*

> *But then also having clear resources for the women, because if you're a client going in to an appointment, and then you've just been given this tool, and you've scored high, I think you need to be given resources to go home with, otherwise … and, like self-help resources for the interim. Because there's no way they're going to get support the next day … I think having these like resources and self-help kind of activity books would be a nice thing, or a video that they make. Something like that.*
>
> *E1-INT-004*

Impact on staff or services

The majority of participants did not perceive the SAAS to have a negative impact on staff and services. However, it was discussed that newly qualified staff may need support to introduce the SAAS because of their lack of familiarity with referral pathways and services available if a woman scores highly. Participants discussed whether effective detection of perinatal anxiety would have an impact on secondary care and support services and stressed the importance of engaging other teams when the change to assessment is introduced to ensure this is well accepted throughout the pathway.

> *I don't think it impacted … if anything it was probably positive from an administration point of view, like obviously with the referrals, giving a bit more information. Erm, definitely didn't negatively impact staffing, like it didn't make appointments longer by any like, any considerable amount. Erm, no, yeah it was fine.*
>
> *E1-INT-021*

> *I know the perinatal community team were supportive of the SAAS tool as well, because that's the other thing it has a knock-on effect to secondary services. Because IAPT, talking therapy services, referrals you'd think would go up, secondary care you'd think would go up if we're screening more for it.*
>
> *E1-INT-004*

Improvements to the implementation strategy

Some participants felt it would be beneficial to record additional information as part of the implementation to enable them to track the impact of introducing the tool in their service. Others had the view that using the SAAS at different times in pregnancy would be useful so changes in symptoms could be monitored over time. Repeated assessments over pregnancy were recommended as part of the implementation training but were variably implemented at sites, suggesting variation and limitations in how the assessment was implemented.

> *[M]aybe I would use the SAAS or any method of emotional wellbeing monitoring tool, not only a booking but maybe another event, another time in pregnancy. Because things change in pregnancy and your feelings are different from when you are just pregnant to when you're seeing your bump, you are in second trimester, you're nesting …*
>
> *E1-INT-003*

Sustainability of change in practice

There was a general agreement that the change in practice was perceived as sustainable in the short and long terms and provided several advantages compared to the previous methods of assessment. Overall, burdens were considered minimal, and the additional information provided by the SAAS was perceived as valuable. Some participants stated they would like to continue using the assessment after the study ended. One factor that was indicated as essential was wider buy-in from services where women would be referred to (e.g. GPs, perinatal mental health team). At a minimum, there should be information sessions for these services to make them aware of what their referrers are using to screen for perinatal anxiety.

> *I think some midwives really liked it and they want to keep it in their practice when they have these cases. So even if it's … time-consuming, er, actually they still want to embed that in their practice, some of the midwives.*
>
> *E1-INT-003*

> *Yeah, they [midwives] would have to have a few sessions initially to introduce them to a new screening tool. As I say, you know we buy education and training, erm, but we would maybe set a release date and be actually as of this date we will now be using SAAS to screen for perinatal anxiety … and this is, this is the sort of, the referral or the user guide that goes sort of with it. Erm … but it would absolutely need to link into a wider pathway for it to be sustainable in this service.*
>
> *S2-INT4*

It was also reiterated that sustainability depends on whether the assessment would be implemented in replacement of the clinically recommended tool, due to the time that is needed to complete an additional tool. As discussed previously, whether the tool could be incorporated into practice in a digital way was also reiterated when asked about sustainability, as many highlighted that services are now transferring to digital methods and having this tool on paper may be a hindrance. Overall, it was discussed that while the opinions of those administering the tool were important, the views on whether this was sustainable enough to be introduced would not be decided by them and would be made at a higher level.

> *I think it depends very much, how much you get out of it, and to see how the client is going to benefit.*
>
> *E2-INT-028*

> *The only thing I would say is I guess now we're trying to move forward to digital … erm, working, the use of paper, save the environment … and … how we would be able to use the tool as part of our own digital system.*
>
> *E1-FG1-P2*

Discussion

This paper reported on case studies of implementation of the SAAS in NHS sites in England and Scotland. We conducted a qualitative evaluation of acceptability and feasibility of using this new measure in clinical practice for routine screening of perinatal anxiety. Overall, participants indicated that the new scale made it easier to initiate conversations about anxiety symptoms with women and discussing answers to questions in the scale facilitated disclosure of symptoms. This was found to be the case particularly when women completed the measure as a self-report, as opposed to HCPs asking the questions. The SAAS was useful for pinpointing specific problematic symptoms which, in turn, informed HCPs' decisions about the appropriate service to refer women to. However, the meaning of SAAS scores was not always clear, and HCPs were sometimes unsure about appropriate referral pathways.

Uncertainty about existing referral pathways was not specific to the SAAS but to mental health assessment more broadly. This aligns with UK National Screening Committee findings that most women are asked about their mental health and that HCPs are confident in asking, but that action to address identified problems through onward referral, support, advice and treatment is inconsistent across services.[24] To improve the onward process, roles such as specialist midwives in perinatal mental health, or access to other mental health specialists, may be beneficial in supporting HCPs with decisions about symptom management and referral pathways.[25] It is imperative that HCPs know about NHS and supplementary services available in their area, and having score ranges for the SAAS (e.g. mild/moderate/severe) could also be beneficial in supporting decisions on management strategies and referrals.

Healthcare professionals need to be confident in their use of the SAAS, and our findings suggest that training and implementation strategies need to be carefully developed and fully engaged with to ensure confident use. While our findings suggest that the implementation strategy aided consistent use of the scale and was useful in facilitating implementation, HCPs who had missed the information session were initially unsure about how to use the scale and which actions they could take based on different SAAS scores. Replacement videos did not adequately address this need. Evidence suggests that midwives prefer study days to learn about mental health, but if face-to-face training is missed, asynchronous online training which involves scenario-based learning and/or knowledge-based assessment may need to be provided as a replacement.[26] Training also needs to address what HCPs can do in situations such as women's level of English not being sufficient to complete the SAAS, or action to take if a partner or children are present.

Barriers and facilitators to implementing the SAAS were broadly in alignment with evidence about implementation of mental health measures in health services.[27] Lack of time was the most frequently reported barrier. HCPs reported some initial concerns that additional time during appointments may have been needed to cover an additional scale and the length of the scale itself; it was also acknowledged that replacing a two-item measure with the SAAS would not result in additional time pressure. Further barriers included referrals to other HCPs (e.g. GP, perinatal mental health teams) being rejected. The quality of referral information communicated between parties must be appropriate, and information about why referrals are rejected and further information on appropriate avenues should be discussed between professionals.[28]

Facilitators included ease of use of the tool for HCPs and women, availability of specialist mental health staff to support universal HCPs and having a proactive approach to ensure consistent implementation of the tool. Buy-in from the senior management (e.g. head of midwifery

and midwives' team leaders) and awareness of the SAAS among all services/HCPs who may receive referrals based on use of the scale are also required.

Variability and limitations on implementation of the SAAS were present across sites. HCPs did not always use the scale with their patients. Reasons for this included perceived insufficient English language skills of women, leading to concerns that they may have not fully understood the questions, although this issue does not appear to be specific to the SAAS;[29] the presence of partners and children; and other aspects of the appointment taking more time. A recent review of potential barriers to the implementation of mental health assessment using self-report scales identified a number of key barriers.[27] These included logistic and administrative issues, HCP's resistance to implementation, and lack of infrastructure and sufficient staff, also reported as potential concerns by a minority of participants in this study.

Concerning sustainability of change in clinical practice, burdens were considered minimal, while there were several advantages compared to existing methods of assessment. An important consideration for long-term sustainability was that the SAAS should be made available digitally given the ongoing move in the NHS to digital methods of data collection. A comprehensive and accessible implementation guide for services to facilitate uptake of the SAAS in clinical practice is also necessary; this is in preparation and will be made available on the study website (www.mapstudy.org/).

Limitations

Healthcare professionals involved in this study suggested it would have been helpful to see the number of cases identified using the tool and the referrals subsequently made to services. However, this was challenging to obtain, especially in cases such as recommendations for self-referrals to other support services, such as improving access to psychological therapies. Future research could capture these data to understand the appropriateness of referral routes. Because of the variability in setting (hospital, community clinics, telephone appointments) and job roles, it was not possible to keep a record of how many women were screened in total. However, based on partial data, we estimate this figure to be in the hundreds.

A further limitation is that it was only possible to interview 73% of participants in the postimplementation phase, as some of the community midwives could not take part in the postimplementation focus groups because of high demand from their clinical work. We had, however, confirmation from sites that all HCPs who were interviewed in the initial phase had used the scale in clinical practice. The inclusion in the study of more senior staff would have been beneficial, as participants indicated buy-in from individuals in management role as an important facilitator to implementation.

Conclusions

Key recommendations for successful implementation include: (1) buy-in from senior management regarding the use of a new scale, as this has a direct impact on HCPs' attitude towards the scale and increases motivation; (2) ensuring that all HCPs using the SAAS have attended information sessions on its use; (3) ensuring that all services where women may be referred to are at least aware of the scale and have some basic knowledge of it; and (4) clarity on referral pathways and inclusion criteria for all services where women may be signposted or referred to. Further research should explore the use of a digital version of the SAAS and translated versions. Replication in NHS services with different care pathways is also recommended.

Additional information

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Data-sharing statement

Individual participant-level information is not available to preserve anonymity, but research material, analytic codes and sample-level information are available from the corresponding author, on reasonable request.

Ethics statement

All procedures contributing to this work comply with the ethical standards of the Helsinki Declaration of 1975, as revised in 2008. This study was approved by the HRA and Health and Care Research Wales (HCRW) on 30 January 2023 (REC reference 22/HRA/5484).

Information governance statement

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Primary conflicts of interest: Andrea Sinesi, Helen Cheyne and Margaret Maxwell developed and published the measure used in this study, the Stirling Antenatal Anxiety Scale (SAAS).

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List of abbreviations

CORE-10	Clinical Outcomes in Routine Evaluation-10
GAD-2	Generalised Anxiety Disorder-2
GAD-7	Generalised Anxiety Disorder-7
GP	general practitioner
HCP	healthcare professional
MAP	Methods of Assessing Perinatal Anxiety
PAR	Participatory Action Research
PARIHS	Promoting Action on Research Implementation in Health Services
SAAS	Stirling Antenatal Anxiety Scale

References

1. Dennis CL, Falah-Hassani K, Shiri R. Prevalence of antenatal and postnatal anxiety: systematic review and meta-analysis. *Br J Psychiatry* 2017;**210**:315–23. https://doi.org/10.1192/bjp.bp.116.187179
2. Stein A, Pearson RM, Goodman SH, Rapa E, Rahman A, McCallum M, *et al*. Effects of perinatal mental disorders on the fetus and child. *Lancet* 2014;**384**:1800–19. https://doi.org/10.1016/S0140-6736(14)61277-0
3. Fawcett EJ, Fairbrother N, Cox ML, White IR, Fawcett JM. The prevalence of anxiety disorders during pregnancy and the postpartum period: a multivariate Bayesian meta-analysis. *J Clin Psychiatry* 2019;**80**:1181. https://doi.org/10.4088/JCP.18r12527
4. Ding XX, Wu YL, Xu SJ, Zhu RP, Jia XM, Zhang SF, *et al*. Maternal anxiety during pregnancy and adverse birth outcomes: a systematic review and meta-analysis of prospective cohort studies. *J Affect Disord* 2014;**159**:103–10. https://doi.org/10.1016/j.jad.2014.02.027
5. Glover V. Maternal Stress During Pregnancy and Infant and Child Outcomes. In Wenzel A, editor. *The Oxford Handbook of Perinatal Psychology*. New York: Oxford University Press; 2016. pp. 268–83.
6. World Health Organization. *International Statistical Classification of Diseases and Related Health Problems*. Geneva: World Health Organization; 2011. https://doi.org/10.1093/oxfordhb/9780199778072.001.0001
7. Blackmore ER, Gustafsson H, Gilchrist M, Wyman C, O'Connor TG. Pregnancy-related anxiety: evidence of distinct clinical significance from a prospective longitudinal study. *J Affect Disord* 2016;**197**:251–8. https://doi.org/10.1016/j.jad.2016.03.008
8. Waqas A, Koukab A, Meraj H, Dua T, Chowdhary N, Fatima B, Rahman A. Screening programs for common maternal mental health disorders among perinatal women: report of the systematic review of evidence. *BMC Psychiatry* 2022;**22**:54. https://doi.org/10.1186/s12888-022-03694-9
9. American College of Obstetricians and Gynecologists' Committee on Obstetric Practice. ACOG Committee Opinion No. 757: Screening for perinatal depression. *Obstet Gynecol* 2018;**132**:e208–12. URL: www.acog.org/clinical/clinical-guidance/committee-opinion/articles/2018/11/screening-for-perinatal-depression (accessed 13 April 2024).
10. Matthey S, Fisher J, Rowe H. Using the Edinburgh postnatal depression scale to screen for anxiety disorders: conceptual and methodological considerations. *J Affect Disord* 2013;**146**:224–30. https://doi.org/10.1016/j.jad.2012.09.009
11. National Institute for Health and Care Excellence. *Antenatal NI: Postnatal Mental Health: Clinical Management and Service Guidance (CG192)*. London: NICE; 2014. URL: www.nice.org.uk/guidance/cg192 (accessed 13 April 2024).
12. Spitzer RL, Kroenke K, Williams JBW, Löwe B. A brief measure for assessing generalized anxiety disorder: the GAD-7. *Arch Intern Med* 2006;**166**:1092–7. https://doi.org/10.1001/archinte.166.10.1092
13. Nath S, Ryan EG, Trevillion K, Bick D, Demilew J, Milgrom J, *et al*. Prevalence and identification of anxiety disorders in pregnancy: the diagnostic accuracy of the two-item Generalised Anxiety Disorder scale (GAD-2). *BMJ Open* 2018;**8**:e023766. https://doi.org/10.1136/bmjopen-2018-023766
14. Ayers S, Coates R, Sinesi A, Cheyne H, Maxwell M, Best C, *et al*.; the MAP Study Team. Assessment of perinatal anxiety: diagnostic accuracy of five measures. *Br J*

Psychiatry 2024;**224**:132–8. https://doi.org/10.1192/bjp.2023.174

15. Löwe B, Decker O, Müller S, Brähler E, Schellberg D, Herzog W, Herzberg PY. Validation and standardization of the Generalized Anxiety Disorder screener (GAD-7) in the general population. *Med Care* 2008;**46**:266–74. https://doi.org/10.1097/mlr.0b013e318160d093
16. Whooley MA, Avins AL, Miranda J, Browner WS. Case-finding instruments for depression: two questions are as good as many. *J Gen Intern Med* 1997;**12**:439–45. https://doi.org/10.1046/j.1525-1497.1997.00076.x
17. Barkham M, Bewick B, Mullin T, Gilbody S, Connell J, Cahill J, *et al*. The CORE-10: a short measure of psychological distress for routine use in the psychological therapies. *Couns Psychother Res* 2012;**1**:11. https://doi.org/10.1080/14733145.2012.729069
18. Sinesi A, Cheyne H, Maxwell M, O'Carroll R. The Stirling Antenatal Anxiety Scale (SAAS): development and initial psychometric validation. *J Affect Disord Rep* 2022;**8**:100333. https://doi.org/10.1016/j.jadr.2022.100333
19. Kitson AL, Rycroft-Malone J, Harvey G, McCormack B, Seers K, Titchen A. Evaluating the successful implementation of evidence into practice using the PARiHS framework: theoretical and practical challenges. *Implement Sci* 2008;**3**:1. https://doi.org/10.1186/1748-5908-3-1
20. Braun V, Clark V. *Successful Qualitative Research: A Practical Guide for Beginners*. London: SAGE Publications Ltd; 2013. https://doi.org/10.53841/bpsqmip.2014.1.18.39
21. Sekhon M, Cartwright M, Francis JJ. Acceptability of healthcare interventions: an overview of reviews and development of a theoretical framework. *BMC Health Serv Res* 2017;**17**:88. https://doi.org/10.1186/s12913-017-2031-8
22. Ritchie J, Lewis J. *Qualitative Research Practice: A Guide for Social Science Students and Researchers*. London: SAGE Publications Ltd; 2003. URL: https://uk.sagepub.com/en-gb/eur/qualitative-research-practice/book237434 (accessed 13 April 2024).
23. Gale NK, Heath G, Cameron E, Rashid S, Redwood S. Using the framework method for the analysis of qualitative data in multi-disciplinary health research. *BMC Med Res Methodol* 2013;**13**:117. https://doi.org/10.1186/1471-2288-13-11
24. UK National Screening Committee. *UK NSC Screening for Antenatal and Postnatal Mental Health Problems Recommendation*. URL: www.gov.uk/government/publications/uk-national-screening-committee-annual-report-2018-to-2019/screening-in-the-uk-making-effective-recommendations-1-april-2018-to-31-march-2019#rec1 (accessed 18 March 2024).
25. Bayrampour H, Hapsari AP, Pavlovic J. Barriers to addressing perinatal mental health issues in midwifery settings. *Midwifery* 2018;**59**:47–58. https://doi.org/10.1016/j.midw.2017.12.020
26. Noonan M, Jomeen J, Galvin R, Doody O. Survey of midwives' perinatal mental health knowledge, confidence, attitudes and learning needs. *Women Birth* 2018;**31**:e358–66. https://doi.org/10.1016/j.wombi.2018.02.002
27. Gelkopf M, Mazor Y, Roe D. A systematic review of patient-reported outcome measurement (PROM) and provider assessment in mental health: goals, implementation, setting, measurement characteristics and barriers. *Int J Qual Health Care* 2022;**34**:ii13–27. https://doi.org/10.1093/intqhc/mzz133
28. Hartveit M, Vanhaecht K, Thorsen O, Biringer E, Haug K, Aslaksen A. Quality indicators for the referral process from primary to specialised mental health care: an explorative study in accordance with the RAND appropriateness method. *BMC Health Serv Res* 2017;**17**:1–3. https://doi.org/10.1186/s12913-016-1941-1
29. Pilav S, De Backer K, Easter A, Silverio SA, Sundaresh S, Roberts S, Howard LM. A qualitative study of minority ethnic women's experiences of access to and engagement with perinatal mental health care. *BMC Pregnancy Childbirth* 2022;**22**:421. https://doi.org/10.1186/s12884-022-04698-9

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