Midwives and service users' perspectives on implementing a dialogue about alcohol use in antenatal care: a qualitative study

Running head: **Champion: AlCohol HArM PreventION in pregnancy**

Abstract

Aim: There are barriers to midwives engaging in conversations about alcohol with pregnant women. Our aim was to capture the views of midwives and service users to co-create strategies to address these barriers.

Design: Qualitative description.

Methods: Structured Zoom-based focus group interviews of midwives and service users where we presented known barriers and sought solutions to midwives discussing alcohol use in antenatal settings. Data collection took place between July and August 2021.

Results: Fourteen midwives and six service users attended five focus groups. Barriers considered were: i) lack of awareness of guidelines, ii) poor skills in difficult conversations, iii) lack of confidence, iv) lack of belief in existing evidence, beliefs v) women would not listen to their advice and vi) alcohol conversations were not part of their role. Five strategies to address barriers to midwives discussing alcohol with pregnant women were identified. These were: training that included mothers of children with Foetal Alcohol Spectrum Disorder, champion midwives, a service user questionnaire about alcohol for completion before the consultation, questions about alcohol added to the maternity data capture template and a structured appraisal to provide a means of audit and feedback on their alcohol dialogue with women.

Conclusions: Co-creation involving providers and users of maternity services yielded theoretically underpinned pragmatic strategies to support midwives to ask advise assist about alcohol during antenatal care. Future research will test if the strategies can be delivered in antenatal care settings, and if they are acceptable to service providers and service users.

Impact: If these strategies are effective in addressing barriers to midwives discussing alcohol with pregnant women, this could support women to abstain from alcohol during pregnancy, thus reducing alcohol-related maternal and infant harm.

Patient and public contribution

Service users were involved in the design and execution of the study, considering data, supporting intervention design and delivery and dissemination.

Key words

Midwives, nurses, alcohol, implementation intervention, behaviour change, pregnancy, “Foetal Alcohol Spectrum Disorder” FASD, co-creation

What is already known

- Drinking alcohol during pregnancy causes harm to both mother and infant.
- International and national guidelines suggest midwives engage in a dialog about alcohol with pregnant women
- Midwives encounter many barriers to having conversations about alcohol including concern about offending women, and beliefs that moderate alcohol consumption would not cause harm and that pregnant women would not listen to their advice.

What this paper adds

- Midwives and women in our study developed strategies support midwives engaging in a dialogue about alcohol with pregnant women
- Strategies were tailored to midwife reported barriers and theoretically underpinned
- These included changes to questions on the electronic clinical record, midwife champions, educational workshops and a questionnaire for pregnant women to complete prior to their consultation

Implications for practice/policy

- Adoption of strategies in practice is likely to address barriers to and result in more frequent conversations between midwife and pregnant women about alcohol
- A dialogue about alcohol is the first step in midwife intervention or referral to support women in abstaining

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INTRODUCTION

Drinking alcohol during pregnancy increases the likelihood of premature birth, stillbirth, intrauterine growth retardation, low birth weight and foetal alcohol spectrum disorders (FASD) (Patra et al., 2011). There is a clear correlation of heavy alcohol consumption during pregnancy and having a child with FASD (Patra et al., 2011). FASD is a term used to describe the cognitive, emotional and behavioural deficits that can arise due to alcohol exposure before birth (Streissguth et al., 1996). The impact of FASD is life long and can include academic failure, mental health problems, an inability to live independently or maintain employment (Abel, 1998; Popova et al., 2017; Riley et al., 2011; Streissguth et al., 1996). The global prevalence of alcohol consumption in pregnancy is estimated to be 9.8%, with the UK being one of the highest worldwide at 41.3% (Popova et al., 2017). The complex and long-term nature of FASD imposes a burden not only on the individual themselves but also their family and wider services (including health and social care systems) (Popova et al., 2017). Approximately one in 13 women who drink alcohol during pregnancy will have a child with FASD (Popova et al., 2017).

The World Health Organization (WHO, 2016) recommends at every antenatal visit from confirmation of pregnancy that pregnant women are i) asked about their alcohol use (validated screening instruments are suggested), ii) advised on the health risks to themselves and their offspring and iii) where necessary to "intervene or refer". The specific advice in many countries (WHO, 2014) including the UK Department of Health (DoH, 2016) is abstinence. In the UK, these guidelines replaced previous advice to consume no more than one or two units of alcohol once or twice a week (National Institute for Health and Care Excellence, 2021). The rationale for abstinence is no safe level of consumption during pregnancy has been identified (Mamluk et al., 2017).

Despite recommendations in international and national guidelines, research indicates sub-optimal implementation of the recommendations with regard to a dialog about alcohol by qualified practitioners including midwives. A survey of midwives from East of England showed that 60% routinely enquired about alcohol but only 29% routinely provided alcohol advice (Winstone & Verity, 2015). Similar findings were reported in a study of 118 healthcare professionals including midwives carried out in Canada (Ordean et al., 2020). Despite other studies in Norway, Australia and England reporting almost all midwives ask about alcohol and advise abstinence in line with the guidelines; fewer do so after the initial booking appointment and many do not use a validated alcohol screening tool to do so (Schölin et al., 2021; L. A. Smith et al., 2021).

BACKGROUND

The lack of a standardised approach to routine enquiry and recording of alcohol consumption throughout pregnancy may influence midwives' practices, but other factors may play a part. We carried out a review of studies reporting barriers and facilitators to midwives engaging in conversations about alcohol with pregnant women and found a paucity of such studies in the UK. As a result, and because existing studies have tended not to take a theoretical approach to understanding this practice behaviour, we conducted a theoretically underpinned national survey (L.A. Smith et al., 2021), interviews and focus groups (Schölin et al., 2021) with UK midwives. From the international literature and our work in the UK we identified six dominant themes representing a barrier to the clinical behaviour in question for midwives: i) midwives were unsure about current alcohol guidance, the evidence for the effects of alcohol exposure during pregnancy or how to assess alcohol consumption (Petersen-Williams et al., 2015; Schölin et al., 2021), ii) they often lacked the skills to engage in difficult conversations about alcohol and challenge any apparent misrepresentations from women about their alcohol consumption (Petersen-Williams et al., 2015; Schölin et al., 2019; L. A. Smith et al., 2021), iii) they sometimes lacked the confidence to engage in such conversations and were concerned about offending women (Schölin et al., 2021; Winstone & Verity, 2015), iv) some questioned the evidence underpinning the abstinence recommendation and didn't believe that drinking low to moderate amounts of alcohol would be harmful to the pregnant woman or the baby (Winstone & Verity, 2015), v) midwives often did not believe women would take their advice (Petersen-Williams et al., 2015) and vi) some thought consultations about alcohol were not part of their role/not prioritised in their workload (Schölin et al., 2021; L. A. Smith et al., 2021).

Adoption of evidence into practice is slow with estimates suggesting approximately 17 years (Morris, et al., 2011) and it is well established that there are no "magic bullets" to implementation (Oxman et al., 1995). Real world implementation typically involves health care practitioners changing what they do and evidence suggests that behaviour change theory is effective in supporting such change (Michie et al., 2005) particularly when strategies are tailored to pre-assessed barriers and facilitators to the practice behaviour in question (Baker et al., 2015). In previous work we followed the first two steps (out of four) from guidelines developed to address the need for a systematic approach in designing theoretically informed strategies to support best care (French et al., 2012).

1. *"Who needs to do what differently?"* We specified and defined the clinical behaviour drawing on WHO recommendations and clinical guidelines for antenatal care (WHO, 2016) and structured them according to the AACTT (Action, Actor, Context, Target, Time) framework (Presseau et al., 2019) as: Midwives (Actor), at all routine antenatal

appointments (Time and Context) asking and advising (abstinence) and (where appropriate, referring) (Action) pregnant women (Target) about their alcohol consumption.

2. *"Using a theoretical framework, which barriers and enablers need to be addressed?"* Through review of the literature, focus groups, interviews (Schölin et al., 2021) and a national survey (Smith et al., 2021) we identified six categories of barriers, as described above. We mapped barriers and facilitators from the literature and our survey to the theoretical domains framework (TDF) (Michie et al., 2005). The purpose of this categorisation was to support the selection of appropriate behaviour change techniques (Michie et al., 2008) (described below)

The purpose of this mapping was to support the aim of our study, which we report here, to address:

3. *"Which intervention components (behaviour change techniques (BCTs) and mode(s) of delivery) could overcome the modifiable barriers and enhance the enablers?"*

To do this we took a qualitative focus group, co-creation approach. Co-methodologies are increasingly used in health care because they bring together researchers and service users to facilitate improved performance (Jackson & Greenhalgh, 2015). For co-working to be effective, there is a requirement that lay people and professionals work as equals (INVOLVE, 2021). We followed this good practice guidance to ensure meaningful, respectful engagement, managing inter-personal interactions and power relations.

THE STUDY

Aim

Our aim was to capture the views of midwives and service users to co-create strategies to address the barriers to engaging in a dialogue about alcohol.

Design

We took a qualitative descriptive approach to consider BCTs to underpin the co-creation of strategies that could feasibly be deliverable in antenatal care. Qualitative description research projects aim to gain first-hand knowledge of service users' or healthcare practitioners' experiences with a topic (Bradshaw, Atkinson, & Doody, 2017); in this case to consider barriers and facilitators to practice innovation.

Using precedents from the literature (Bravington et al., 2022; Glover et al., 2020; D. Smith et al., 2021) an iterative approach was adopted, whereby findings from one group session were presented to the next. Feedback was sought and refinement made until consensus on the best strategies to support a dialogue about alcohol was reached. Evidence suggests using groups compared with

individual data collection methods better supports the elaboration and exploration of existing ideas through discussion (Guest et al., 2017) and as such is a commonly used method when co-creating solutions to improve health care (Elg et al., 2012). As a starting point, we selected Behaviour Change Techniques (BCTs) from a matrix of techniques mapped to the specific domains of the TDF (Michie et al., 2008) within which the barriers we identified were categorised. The value of this approach is techniques that are likeliest to be effective can be selected. The list was supplemented by additional BCTs taken from a taxonomy (Michie et al., 2013) (based on the judgement of JD (CPsychol). Researcher and Midwife colleagues (LS, HH) deselected techniques that were inappropriate for the context; that is, they could not *feasibly* be delivered, or the technique would be *unacceptable* to the target group.

Sampling and Recruitment

Participants were UK NHS registered midwives who provided antenatal care, mothers with recent experience of being maternity service users (last six months) and mothers of children with FASD. All participants were competent adults aged over 18 years. We estimated between eight to 15 midwives would be sufficient to represent a range of geographical areas capturing any variation in practice context (e.g., model of care and socio-economic status of client group). We aimed to recruit a minimum of six midwives and six service users that would attend on three occasions. However, due to poor attendance at the first three groups by midwives we held two subsequent focus groups with midwives only. Service users and midwives were recruited using snowball sampling methodology, using the team's existing professional networks and social media (twitter). Potential participants were sent electronic Participant Information Sheet and consent documentation by the research team. They were asked to contact FO for further information about the study and were given the opportunity to ask questions or have an informal conversation about the study. All offers of participation were accepted.

Data collection

Focus groups: All groups were held using Zoom to facilitate maximum attendance from both busy mothers and midwives who were located in different areas of the UK, some of whom would have needed to travel for several hours to attend face-to-face. Focus groups were chosen to capitalize on group interaction when exploring consensus on the topic and enabling active participation in the process of co-designing practical clinical strategies (Kitzinger, 1995). Participants were sent written information about online functionality and service user participants supported by FO and MC to ensure they had access to computers or telephones and to engage in a trial run of using the

technology. Groups were held fortnightly to allow a balance of i) enough time for between group synthesis of data yet ii) not too much time for the team to lose interest or engagement. All participants were given a £50 shopping voucher to remunerate for their time.

Focus groups were chaired by FO (post-doctoral researcher), co-facilitated by LS (senior researcher, nurse) and JD (senior researcher, nurse, CPsychol) and supported by HH (post-doctoral researcher, midwife), KC (researcher, health visitor) and MC (director of the FASD Network UK); the research team comprised of one man and five women. Participants were not known to any of the researchers prior to involved in focus groups prior to the study. After introductions to participants and researchers and a brief presentation on the purpose of the study, focus groups involved a mixture of full group discussions and breakout rooms with subsequent feedback. Breakout groups were according to participant expertise (midwives or service users) to ensure all participants had the opportunity to contribute fully. When participants returned to the full group after breakout sessions, they had the opportunity to summarise the content of their discussions to allow a shared understanding of all perspectives.

The first three groups were structured as follows:

i) Selecting content. For each barrier, we presented a slide to the group with a definition of the barrier, illustrated by participant quotations from our previous work or the literature and the BCTs likeliest to be effective (Figure 1). We challenged participants to translate the BCTs into strategies that would support conversations about alcohol.

Figure 1: Example activity - here

ii) Mode of delivery. A synthesis of suggested content from stage one was presented to the group to facilitating further discussion and elaboration, then we presented a "taxonomy" of possible ways of delivering intervention content. This was derived from suggestions from group one and literature reviews of interventions designed using the TDF (Cowdell & Dyson, 2019; Dyson & Cowdell, 2021).

iii) Acceptability, practicability and affordability were selected from the APEASE (Acceptability, Practicability, Effectiveness, Affordability, Side-effects, and Equity) (Michie et al., 2014) criteria as elements we considered possible to judge at this stage of strategy development. After presenting synthesised data as discrete strategies we facilitated a series of activities whereby participants were asked to judge on a scale of 1-

10 with 1 being the poorest outcome and 10 being the best then discuss and justify their scores.

Groups 4 and 5 followed the same structure but due to participants being midwives only (no service users) we were able to deliver all three activities (described above) in a single meeting.

Ethical considerations

This study was reviewed and approved by the Faculty of Health Sciences Research Ethics Committee, University of Hull (REF FHS323) prior to recruitment.

Data Analysis and Rigour

Focus groups (including break out) were audio recorded, no notes were taken. Participant contributions were transcribed. We did not transcribe facilitator presentations or questions to enable a rapid initial analysis as this fed into subsequent co-creation groups. Transcribed content was considered alongside careful and repeated exposure to audio recordings. Thematic analysis in line with Braun and Clarke's six step process (Braun & Clarke, 2006) was conducted making annotations to word document transcripts. Qualitative analysis was undertaken according to the research aim (strategies to address barriers to a dialogue on alcohol) and was initially undertaken by JD and FO and consensus and theme definitions were achieved through discussion with LS to support reliability. We used the Consolidated Criteria for Reporting of Qualitative Research (COREQ) checklist to enhance the transparency of our reporting (Tong et al., 2007).

RESULTS

Five focus groups were held with a total of fourteen midwives and six service users. Of the six service users, three were mothers with recent experience of maternity services (pseudonyms Norah, Rose and Sadie) and three had children with FASD (pseudonyms Violet, Luna and Ava). Groups lasted for two hours. No new codes or themes were identified after group three and we were satisfied data had reached saturation. Midwives were distributed across England with seven from the north, one from the midlands and six from the south. Participant characteristics and group attendance is presented in table 1. All groups were held in July and August 2021.

Table 1: Participant characteristics – here

Focus groups 1 and 2 generated ideas that were refined in groups 3-5 through consensus voting activities and further discussions. This led to five key themes representing the most acceptable, practicable and affordable strategies. Figure 2 demonstrates the link between barriers and

intervention components underpinned by listed the behaviour change techniques. The final themes (informing strategies) were: i) face-to-face workshops with content to address all key barriers, ii) champions to provide mentorship and support to midwives, iii) a questionnaire to be given to women before their antenatal appointment to support discussion with the midwife, iv) mandatory consultation questions about alcohol consumption added to the data capture template and v) adding an extra element to midwives' appraisal documents about their engagement and experience with alcohol discussions. Each theme is presented with illustrative quotations below.

Figure 2: Intervention creation process - here

FINDINGS

1. **Workshop/training**

Although several means of addressing knowledge barriers (relating to guidelines, the evidence base and means of assessing alcohol risk) were discussed, opinions converged on delivering workshop or training events, either face-to-face, on-line or App' based as they also offered the means of demonstrating communication skills and offering opportunities to support or challenge beliefs about the harmfulness of drinking.

> *"Using a face-to-face training or e-learning module and making it part of the yearly mandatory training. A decent e-learning module - with a quiz. Resource links in the module."* Ruby MW

> *"Training is obviously the key to it . . . around having a difficult conversation."* Grace MW

Regarding communication skills, midwife and service user participants suggested including skills that supported a non-judgemental approach, recognising and positively challenging inaccurate reports of drinking from women and means of individualising information according to need.

> *"Training about difficult conversations and building relationships. . . not just alcohol, smoking, drug use. . . to* [facilitate] *women to disclose information."* Faith MW

Midwives wanted to see examples of good practice across a range of possible consultation scenarios and to hear in the woman's own words what she found helpful and unhelpful in consultations.

> *"It will be helpful . . . having a modelled conversation with actors and real women around what did the midwives say to you that helped, what did you find offensive? What made you think the midwife was on your side?* Ella MW

> *"Having something easy to watch like a video . . . interesting to watch."* Josie MW

Midwives also suggested including content that allowed them to better understand why a woman may be reluctant to disclose their drinking, how to address these barriers and what women wanted in consultations about alcohol.

"[Understand] *why they may be reluctant to disclose. . . if they have had bad experiences of discussing their drinking . . . if they have had bad experiences of disclosing their alcohol use."* Betty MW

What is acceptable to women and what is not acceptable." Lily MW

Service users wanted midwives to deliver clear fact-based information and advice with "conviction" as experts in the field:

"If I am going to the hospital, I want someone to come and give us the facts". Norah SU

"If a midwife is not delivering that with a conviction, I am not going to buy into it. I look at the midwives with high status because they are the professionals. They need to deliver it with conviction". Violet SU

When it came to midwives' fear of offending or damaging the service user/midwife relationship many suggestions of content were offered. The most frequently offered suggestion, offered by both service users and midwives was parents of children with FASD sharing their experiences.

"Having a maternity service user come to the training session to talk about what made the difference about the way midwives have spoken to them." Leah MW

"When a woman stands up and talks. She takes you on a journey and the reality is that it will hit home". Eve MW

"Real life accounts of what's happened . . . deliver to midwives . . . get them to reflect on it get their suggestions and then as well you are getting your colleagues support . . . and build on people's ideas . . . it could even be on the internet." Rose SU

"Real-life story, genuine and very raw. Just something to show that these things do happen." Luna SU

2. Champions

The second intervention component agreed upon in co-creation workshops was the development of a "champion" role. This suggestion came exclusively from midwife participants. Champions would be experienced midwives with specialist knowledge of alcohol use in pregnancy and they would be a source of guidance, information, and support for midwives.

"A trust champion or a unit champion who would ensure that health promotion [alcohol assessment] *is part of our role."* Nicky MW

It was suggested that champions could ultimately take over the workshop delivery (described above) to ensure the sustainability of the intervention in the future.

"Like the train the trainer kind of thing." Maya MW

It was also suggested that a champion might address the barriers where midwives didn't consider offering alcohol advice part of their role, for example:

"Midwives have so many hats, they need to know where that conversation [about alcohol] *falls and how they can be supported with that, through other professionals, we are jack of all trades really in maternity, it's about having the support there"* Sofia MW

3. Service user questionnaire to prime the conversation

To address the barriers relating to midwives believing service users were less likely to listen to their advice and for midwives who did not consider discussing alcohol part of their role, service user and midwife participants suggested the service user prompted the conversation. A range of ways to achieve this were discussed, including showing health promotion videos about alcohol in the waiting room, or sending women leaflets about alcohol consumption pre-consultation.

> *"Having a video outside the waiting room will help with the conversation. Instead of midwives doing it . . . each woman will catch a snap short of the conversation. It gives them the ability to say to the midwives, I have seen that out there and it will open up a conversation."* Sofia MW

However, as the conversation progressed participants agreed on a brief health-behaviours questionnaire (including alcohol use). This would be given to pregnant women to complete before they see the midwife. This would provide a means opening a conversation about alcohol with the midwife. Participants thought that this approach also influenced women to "expect" a conversation about alcohol use which would influence the midwife too.

> "[Information] *about what the booking appointment is. Just to give them* [service-users] *an idea about what to expect."* Sofia MW

> *"If it was put in a booklet, in a leaflet, how many units of alcohol have you had this week . . . it takes the pressure off* [the midwife] *if there is a question in a book . . . the mum and the midwife both know what's expected to be asked."* Susan MW

> *"It will take the stigma away, it's just standard."* Luna SU

4. Add mandatory questions to the clinic template

Both midwife and service user participants considered carefully worded standard questions included in the electronic clinic recording template would support the midwife to ask the service user about alcohol. For example:

> *"Having electronic prompts built into the booking system."* Grace MW

> *"I do think a script around opening up a conversation in a non-threatening way. Sometimes opening up a conversation could be trickiest part".* Sofia MW

Service users suggested such questions should be frank and felt that standardised, universal questions for everyone would be less threatening for service users who had struggled with alcohol before.

> *"Don't pussy foot around, just ask. Straight questions . . . don't be afraid just have the conversation without being judgemental or anything."* Violet SU

> *"It might be a trigger for me, I might think they were singling me out, with my history* [but] *if I went in knowing that this is the same for every woman in England, knowing they would ask, knowing it was a standardised question. . ."* Luna SU

Midwives agreed that questions need be carefully worded to avoid the possibility of them becoming tokenistic or a "tick box" exercise and emphasised the need for skills in responding.

> *"Using a standardised question to open up a conversation is good. The problem is what do you do next, how do you respond and where do you take it to rather than asking the question in the first place"* Faith MW

5. Appraisal documents

The idea of adding a discussion point to annual appraisals evolved through a discussion where it was acknowledged a group setting (such as educational workshop) was not always the optimal forum for people to share their limitations and an acknowledgement of the value of reflection and debrief:

> *"Opportunity to debrief about difficult conversations they have had . . .midwives always come away more confident in their communication skills once they discussed or reflected on the conversation they have had with somebody."* Ruby MW

After a range of one-to-one conversation opportunities was explored the group converged on the idea of appraisal which was thought to be supportive but also reinforce role expectations and create a degree of peer pressure.

> *"If it was say, the midwife's yearly appraisal, which we all have, could it be something that was on their sheet that said . . . "how do you feel about talking about alcohol?""* Isobel MW

DISCUSSION

This qualitative study of five focus groups with 14 midwives and six service users is the first to our knowledge to use a co-creation approach involving midwives and service users, to suggest pragmatic strategies tailored to previously identified barriers to midwives engaging in alcohol conversations with pregnant women. Five strategies were created: i) skills training workshop for midwives, ii) midwife champions, iii) a questionnaire for service users to complete pre-consultation for subsequent discussion, iv) questions added to the midwives' data capture template, and v) clinical performance appraisal. The key elements of these strategies were theoretically underpinned with two to five BCTs of proven effectiveness. Each strategy was well-judged by participants for acceptability, practicability and affordability.

There is little research reporting or testing existing implementation strategies to improving midwives' clinical practices regarding addressing alcohol consumption with women during routine antenatal appointments. We found only one study from Australia that sought to address maternity clinician barriers (midwives, medical practitioners, Aboriginal health practitioners and workers and students) to implementation of a model of care involving assessment, advice and referral about alcohol with pregnant women (Kingsland et al., 2018). The local barriers were identified using a questionnaire based on the TDF and involved maternity clinicians and managers (n=33) in New South

Wales. The intervention strategies involve leadership support, local clinical guidelines, modifications to service user record systems, opinion leaders and champions, educational materials and meetings and audit and feedback on performance measures. These strategies overlap strongly with the pragmatic strategies suggested in the qualitative co-creation process we used. In a subsequent study testing this intervention, it was found to be more effective than usual care with women receiving all elements of the alcohol model of care, but at an increased cost (Szewczyk et al., 2022).

Other health professional mediated strategies to support pregnant women abstain from alcohol have been evaluated, but the implications of the findings are uncertain. For example, a trial comparing midwife counselling with a computer app' based interactive intervention found the computer intervention was effective in stopping or reducing prenatal alcohol use amongst women, but the midwife intervention was not (van der Wulp et al., 2014). The authors suggest this was due to lack of concordance with the study protocol by midwives. Until barriers to midwives engaging in alcohol conversations are addressed, comparing midwife mediated interventions with other interventions will give mis-leading results. However, the potential for a health practitioner resource-led intervention is a promising approach for future work.

Facilitators that may support an alcohol dialogue include one study identifying a positive correlation between midwives' knowledge/exposure to education and alcohol conversations with women (Holmqvist & Nilsen, 2010). This suggests that the educational and workshop elements advocated by the participants in this co-creation study may be effective. Similarly, when midwives believed the evidence about the links between alcohol and maternal and infant outcomes, they were more likely to educate and intervene with women regarding alcohol use (Chiodo et al., 2019). This supports the value of including mothers who have children with FASD in the content of workshops/training for midwives. Research comparing midwives and women's recall of the same alcohol conversation that took place reported midwives' perceptions of it being a "standard conversation" and women's perceptions that "no mention" of alcohol took place (Jones et al., 2011). The pre-consultation questionnaire may go some way to addressing discrepancies such as these in the future.

It is worth noting that barriers that we sought to address in this study are not isolated to alcohol discussions. For example, midwives report conversations about weight challenging and similarly fear upsetting pregnant women (Wennberg et al., 2014). It may be that some of the strategies we co-created would be applicable to other public health topics midwives are expected to address.

The health and social context of care is rapidly changing with growing health inequalities for women and their babies (Knight, 2019). This coupled with the global shortage of midwives (Nove et al.,

2021) suggests midwives engaging in public health strategies such as alcohol conversations is likely to become more challenging and a greater focus on means of addressing these now necessary.

Limitations

Our work has many strengths. We adhered to a robust theoretical process throughout and gave careful consideration and followed the principles of co-design (INVOLVE, 2021; Jackson & Greenhalgh, 2015). This means that the strategies we co-created were not researcher-led but participant-led and as a result more likely to be effective as implementation is person-centred (Yardley et al., 2015). This process is transferable to other health care practitioners including nurses. The limitations included poor attendance at our third co-creation group by midwives. This workshop focused on the feasibility, acceptability and practicability of the suggested interventions, and this was an aspect that we expected the midwives to give valuable feedback on. We were able to mitigate this to some extent in the subsequent groups where we revisited these elements. We had a total of 14 midwives providing antenatal care to women from across the whole of England capturing experiences from a range of NHS institutions and roles. However, we did not capture midwives' length of experience or qualifications, or demographic characteristics so cannot claim to have a maximum variation sample. Variation in midwives' length of experience in particular may be indicative of their familiarity with current versus outdated guidelines. Conducting workshops on Zoom limited the opportunity for researchers to pick up on non-verbal communication; we mitigated this by asking participants to have cameras on and always having more than one (including break-out rooms).

CONCLUSIONS

In this study focus groups were used to co-create with midwives, recent mothers and mothers of children with FASD strategies to address identified barriers to midwives engaging in conversations with pregnant women about alcohol. If the strategies are adopted and midwives' engagement in discussions with women increases this may lead to reductions in harm caused by alcohol during pregnancy.

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