Reflections of maternity service Users and midwives on the co-creation of interventions to support midwives addressing alcohol during antenatal care

Abstract

Background: There are divergent perspectives between midwives and pregnant women on how alcohol consumption during pregnancy could be addressed. Co-creation is an approach where lay people and professionals work together as equal partners, offering the opportunity to bridge the gap.

Objectives: Our aim was to evaluate how well we carried out authentic co-creation of an intervention to support midwives have a dialogue about alcohol consumption with pregnant women.

Patient involvement: Recent maternity service users including women with experience of harm due to alcohol during pregnancy provided feedback on the design, conduct and dissemination of the study.

Methods: An iterative co-creation approach rooted in participatory research methods was used. Five online workshops were carried out with thirteen midwives and six maternity service users via Zoom July-August 2021. Data were analysed using the core values of cocreate as a framework: equality, inclusivity, holistic, resource, positivity, transparency, iterative, and sustainability.

Results: The co-creation process was productive and rewarding to midwives and maternity service users. There were positive experiences across the co-creation framework with some unintended positive consequences for maternity-service users.

Discussion: This evaluation provides new knowledge on how well the co-creation process worked in relation to research involving a sensitive topic that can invite stigma. Co-creation projects require generous time and financial resources to ensure a high-quality process and robust outcome for all.

Practical value: Co-creation of strategies involving both service providers and service users have potential to facilitate evidence-based practice.

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Keywords: gestational alcohol consumption; implementation science; behaviour change; midwives; foetal alcohol syndrome/disorder.

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Introduction

Alcohol is a leading risk factor for deaths and disability in females aged 15-49 years globally [1]. If a woman consumes alcohol whilst pregnant, it can increase the chances of miscarriage, premature birth, intra-uterine growth restriction and Foetal Alcohol Spectrum Disorders (FASD) [2, 3], a neurodevelopmental disability with lifelong impacts. Globally, one in thirteen women who drink alcohol during pregnancy are estimated to give birth to a child with FASD [4].

UK and international guidelines promote evidence-based midwifery care during routine antenatal appointments which includes screening for alcohol consumption and offering a brief alcohol intervention (SBI) [5-7]. Implementation of this however, is sub-optimal in the UK [8, 9]. Perspectives on alcohol consumption during pregnancy can vary; midwives may be reticent to ask about alcohol in pregnancy for fear of offending or upsetting women, whilst pregnant women want to be screened in a supportive and educational manner [10]. Cocreation of healthcare interventions offers an opportunity to help bridge this gap.

Co-creation adds value by bringing together researchers and service users to facilitate improved performance [11]. Regardless of whether the term invoked is co-creation, codesign, co-production or participatory research, the core of the approach is for lay people and professionals to work together as equals during each stage of the research process [12]. Accordingly, good practice guidance includes early engagement of stakeholders, respecting everyone's views, and conscious management of inter-personal interactions as well as power relations [13,14]. A major aim of co-creation is to increase person-centered implementation by ensuring that interventions are participant-led, not researcher-led [15].

Objective

Our aim was to evaluate the extent we managed to adhere to the core values of co-creation by assessing maternity service users' and midwives' experiences of co-creating strategies to support midwives' dialogues about alcohol consumption with pregnant individuals during routine antenatal appointments.

To our knowledge, this is the first report describing the process outcomes of co-creation involving service users on a sensitive topic than can attract stigma.

Patient Involvement

Maternity service users and specifically women with lived experience of the consequences of alcohol consumption in pregnancy provided feedback on the design and conduct of the study and are involved in dissemination of findings. These activities are co-ordinated by MC, Director of the FASD Network, who was a co-applicant on the research grant supporting this work.

Methods

Research Design

An iterative co-creation approach rooted in participatory research methods was used [16], aligned to the co-creation of public health interventions framework [17]. We assessed the meaningful engagement of the midwives and maternity service users and how satisfied they were with the process using the Planning, Action and Reflection (PAR) model [16] underpinned by the principles of co-creation.

Participants recruitment

Maternity service users were recruited mainly through the FASD Network UK [18]. Midwives were recruited by email via our professional networks and social media. Participants were given a £50 shopping voucher for joining in the workshops.

Co-creation workshop procedure

The co-creation activities involved a series of workshops carried out via Zoom [19,20] between July-August 2021 and involved all members of the research team [21]. A briefing

note was provided to all participants 2-3 days before each workshop. A pre-workshop meeting was held with the maternity service users to describe the purpose of the workshop, address any concerns, and to familiarise them with the team members.

Each workshop lasted between 2-3 hours. Workshop 1 and 2 involved small group breakout sessions comprising 5-6 participants/group lasting 15-20 minutes, whereas workshops 3-5 involved the entire group for the duration with no small group sessions. Each group had a facilitator and note-taker. Workshop outputs were analysed, and the results were presented to the whole group during subsequent workshops for feedback.

Intervention development process

The co-creation workshops involving selection of pragmatic interventions, and choosing the mode of delivery (MoD) for each intervention. In workshop 1, the barriers to midwives assessing women during antenatal appointments were presented to the participants along with a list of BCTs proven to be effective in addressing the barriers. The participants reviewed and discussed the techniques and 12 pragmatic interventions were proposed as a result of workshop 1.

In workshop 2, the process was repeated and MoD for each of the 12 pragmatic interventions were selected. In workshop 3, participants voted for each intervention suggested in workshops 1 and 2 based on affordability, practicability and acceptability taken from the APEASE (Acceptability, Practicability, Effectiveness, Affordability, Side-effects, and Equity) criteria [22] using Mentimetre [23],

In workshops 4 and 5, activities carried out in workshops 1 and 2 were repeated with additional midwives to improve the sample size. By the end of workshop 5, we had shortlisted five pragmatic interventions to take forward.

Following the online workshops, a further session was arranged to undertake filming of simulated conversations between actors playing a midwife and a pregnant woman during a routine antenatal appointment.

Data collection methods

Data were collected through groups discussions and Zoom chat, field notes, post-workshop questionnaires, and reflective diaries [24,25]. The workshops were recorded on Zoom cloud. A post-workshop anonymous questionnaire was distributed via e-mail to all participants. The questionnaire asked about their overall experiences regarding the co-creation processes (Supplementary file 1).

Data analysis

Data analysis was iterative. The audio recordings, field notes and the post-workshop questionnaire responses were analysed using the core values of co-creation as a framework composed of equality, inclusivity, holistic, resource, positivity, transparency, iterative, and sustainability [12,26]. The data analysis was carried out by FO (post-doctoral researcher) and JD (senior researcher, CPsychol) with input from LS (senior researcher, nurse), HH (postdoctoral researcher, midwife), KC (researcher, health visitor) and MC (Director of the FASD Network, UK).

Ethical consideration

This study was reviewed and approved by the Faculty of Health Sciences Research Ethics Committee, University of Hull (REF FHS323). We obtained written consent from all the midwives and maternity service users.

Results

Sample description

Altogether, 20 people took part in at least one co-creation workshop. Out of 29 midwives interested in participating, 14 (48%) returned consent forms and took part in the workshops (6 midwives, 4 specialist midwives, 2 research midwives, and 2 community midwives). They were located from across England with seven from the north, one from the midlands and six from the south. Out of eight maternity service users interested, two declined before the workshop due to childcare-related issues leaving six that participated. The maternity service users were aged 17 to 31 years old. Three of the maternity service users had lived

experiences of alcohol consumption during pregnancy and had a child with FASD.

Overall satisfaction with the co-creation workshops

Fifteen participants completed the final evaluation questionnaire. Twelve (80%) of the participants were very satisfied with the way the workshop sessions were organised, and 13 (85%) noted that the workshops were what they expected. All bar one of the participants (96.4%) believed that it was very easy to do the tasks and activities we asked them to do. All participants found it easy or very easy speaking up with technical issues being the main barrier to contributing and making the conversation flow difficult at times. Key participant perspectives are captured in quotes.

"Less formal than I expected and more chance to contribute"

Co-creation experiences

Equality: Co-creation should aim to ensure that people's knowledge and experience are valued equally, regardless of the role they hold [27]. We operated on the principle that all members of the group had the skills, experience and abilities to contribute. When asked if they felt valued and listened to during the workshop sessions on a scale where 1= not valued or listened to, and 5=very valued and listened to, 15 (94%) scored 5, and 1 scored 4.

"Felt honoured that the group was able to share such sensitive and powerful stories. Enjoyed the joint focus of making care better/supporting midwives in working with mums about alcohol"

"…everyone was given a chance to speak, if they so wished"

Inclusive: Co-creation should be as inclusive and diverse as possible [28]. We recruited a diverse group of participants regarding age, roles, location, and experiences of using maternity services. The workshops involved midwives, specialist midwives, community midwives, recent maternity services users (past six months), and mothers who had children with FASD. When we asked the participants what they liked most about the study, the diversity of people in the workshops was a notable feature.

"Enjoyed hearing the different perspectives of the group…it was good to connect with

midwives from different parts of the UK"

Thank you … for this opportunity to be involved and for making it so accessible with a newborn"

However, there was a lack of ethnic mix among the participants despite our efforts to recruit individuals from Black, Asian and Minority Ethnic groups.

Holistic: Co-creation should be holistic and happen at every stage of the research [26]. Maternity services users and midwives were involved in co-creating the interventions, choosing the mode of delivery, voting on the APEASE criteria and refinement of the final outputs. As a result of the goodwill and enthusiasm generated through the workshops, maternity service users were willing to contribute to advising on and featuring in video recordings of their lived experiences of alcohol and pregnancy that form a component of one of the five pragmatic interventions.

Resource: Effective and meaningful co-creation requires adequate resources. Our funding budget included reasonable remuneration and out of pocket expenses for all members of the co-creation group. In this study, this represented around 3–4 per cent of the total budget.

Positive*:* Co-creation should take a strengths-based, 'appreciative' approach [26]. It should be mutually beneficial and an overall positive experience. The midwives and maternity service users enjoyed taking part in the workshops and good humour, openness, and honesty dominated the discussions.

"Love the experience. I particularly enjoyed the problem-solving aspects with using the variety of opinions and experiences from the different groups"

"It was life changing for me as I finally made peace with myself"

On a rare occasion, members noticed that not everyone participated in sharing ideas. This was addressed during team debriefing and members were encouraged to participate actively in subsequent workshops.

Transparent**:** Co-creation should have an easily understandable and transparent remit

regarding aims, expectations, and level of commitment [26]. Over 80% of participants in the workshop reported that the pre-workshop materials were clear, helpful, and easy to understand. During the final evaluation, we asked the participants what they thought the research was trying to achieve in order to assess the extent to which the participants understood the remit of the project.

"This research is trying to enable midwives to advise and support women to not drink in pregnancy. This in turn will lead to a healthier population. Very important."

"I think the research is trying to think of practical ways of improving midwives' skills and knowledge in having sensitive, informative conversations and giving research-based advice to women around alcohol use in pregnancy".

Iterative: Co-creation should be progressive and utilise feedback to build on what came before. The aim is to create, test, learn, and improve through progressive cycles of work. The intervention development was an iterative process. Following each workshop, the research team met to review and reflect on the workshop activities and emerging content. Verbal and written feedback was sought from all members which encouraged and enabled them to give their views. Appropriate changes were made to improve subsequent workshops.

Sustainable**:** Co-creation that is meaningful should have a sustainable impact on the project. Through the intervention development process, we bonded as a team of committed people with a common aim to reduce the harm from alcohol during pregnancy. The project yielded unintended consequences for the mothers of the children with FASD in particular [29]. The recordings of the personal stories of the mothers with a child with FASD for future use as essential components of a training package for midwives, consolidated and reaffirmed their essential roles in the research team. They want to continue to champion for FASD and alcohol dependence awareness and have all now become proactive agents of change.

Discussion and Conclusion

Discussion

This evaluation provides new knowledge on how well the co-creation processes worked in relation to research on a sensitive topic that can invite shame and stigma. Midwives and maternity service users had positive experiences across the eight co-creation principles [12]. We recruited a diverse group of participants and engaged them effectively throughout the workshops. Participants were involved as equal partners in the process regardless of their socioeconomic background and professional status. They voiced how diverse and transparent the process was and liked the way they were treated with genuine care and respect which resulted in them feeling valued and listened to. Overall, we achieved cocreation successfully.

In the early stages, there were signs of anxiety before and during the first workshop especially among the maternity service users. Most had no previous experience of working in a co-creation process. This may have contributed to early apprehension and discomfort amongst them as noted in other studies [29, 30]. Notwithstanding, participation in the process increased their confidence levels and gave them a sense of pride and accomplishment. The women stated that the co-creation process was a good platform for the professionals to take on board their experiences and implement change.

The research team had positive experiences directing, coordinating and working with the midwives and maternity service users to co-creating the interventions. Previous studies have reported initial tension and conflicting values among team members during a cocreation process [30]. However, in our experience, the process was seamless with minimal tension and conflicts among the team. We ensured everyone's perspectives and skills, were valued. A recent review identified 'gems' of good practice (e.g. time to build trusting relationships) where researchers had gone above and beyond the principles of co-creation [32]. Our findings also suggest we went beyond the co-creation framework. The processes we put in place to prepare participants for the workshop tasks and materials we provided

such as information packs, along with pre- and post-group debriefs via a WhatsApp group created by MC for peer support helped manage any anxiety during the workshops and were well utilised and evaluated. We suggest that 'readiness' or 'preparedness' could be a useful additional core value of the co-creation framework.

Nonetheless, of one of the difficulties we encountered was due to the short period of time to process information and analyse data between the workshops which were carried out on a weekly basis. Furthermore, there were challenges keeping the participants focused during the workshops as some of them went off topic and some had difficulty articulating what they wanted to say. The use of Zoom was cost-saving, improved accessibility, and enabled a wide geographic spread of participants, however poor network connectivity, building rapport with participants, and reading body language was more challenging than if in person.

Conclusions

Our processes were robust, and adhered to the key principles of co-creation. There are several lessons learned to carry forward to future projects. Researchers should ensure they plan realistic time scales to prepare and review each iteration of the project. Funders should allocate generous financial resources for engagement and involvement of all stakeholders. Attention to these would help to ensure a high-quality process and robust outcome for all.

Practice Implications

Using an authentic co-creation approach involving both service providers and service users has increased the likelihood that the intervention we developed will help support midwives to assess, advise and assist women about alcohol during pregnancy thus reduce alcoholrelated maternal and infant harm.

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Conflict of interest

The authors declare no conflicts of interest.

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Conflict of interest

The authors declare no conflicts of interest.

Declaration of Competing Interest

Supplementary file 1: Post-workshop questionnaire

1 Overall, how satisfied are you with the way the workshop sessions were organised? Please rate

on a scale of 1-5 where 1 = not satisfied and 5 = very satisfied

2 Were the workshops what you expected? Please rate on a scale of 1-5 where 1 = not as expected and 5 = fully as expected

3 If the workshops were not what you expected, how were they different? (Open text)

4 During the workshops, how easy was it to do the tasks and activities we asked you to do? Please rate on a scale of 1-5 where 1 =very difficult and 5 = very easy

5 If the tasks or activities were not easy, what aspect of the workshops were the most difficult or challenging for you to do? (Open text)

6 If the tasks or activities were not easy, what aspect of the workshops were the most difficult or challenging for you to do? (Open text)

7 In one or two sentences tell us about your experience of taking part in the workshop with a mixture of participants? (maternity service users, midwives and researchers) (Open text)

8 What were the things that stood out for you during the workshop sessions? (Open text)

9 In one or two sentences can you tell us what this research is trying to achieve and whether or not you think it is important? (Open text)

10 What would you suggest doing differently if we run a workshop like this in the future? (Open text)

11 Are there any other comments, ideas, or suggestions you would like to share with us on how to improve the workshop sessions going forward? (Open text)