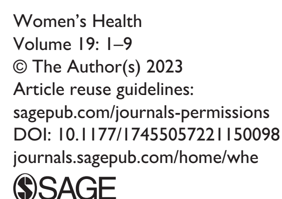

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How should online antenatal and parenting education be structured according to parents? Qualitative findings from a mixed-methods retrospective study

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Abstract

Background: Over the past 50 years, the content and structure of antenatal education classes have varied to reflect social norms of the time, the setting and context in which they have been held and who has facilitated them. In recent times, antenatal and parenting education classes have become a smorgasbord of information, offering a range of diverse content. Where and how parents-to-be may access formal antenatal and parenting education classes are also varied. Even before the lockdown challenges of the Covid-19 pandemic, many antenatal and parenting education classes had become available and accessible online. While the flexibility and accessibility of this option are apparent, scant research to date has reported on parents' experiences of undertaking online antenatal education.

Objectives: The objectives of this study were to explore new parents' experiences of engaging in online antenatal education, and to discover how consumers of online antenatal education perceive it should be designed and delivered.

Design/Methods: A mixed-methods design was used for this study, which was conducted with 294 past enrolees in a range of online antenatal and early parenting education programmes delivered by one private provider in Australia. The past enrolees were invited to participate in the study by email, wherein a link to an online information sheet and survey containing closed- and open-ended questions was provided. The responses to the open-ended questions that are reported in this article were analysed using a thematic approach that involved coding, sub-categorizing and then categorizing the data.

Results: A total of 108 participants provided qualitative data about the delivery and design of online antenatal education and information. The data were captured in three themes: video control and content, accessibility and pre-/intra-programme support.

Conclusions: The results of this study provide important insights for the development of online antenatal education programmes and courses that will be of interest to antenatal educators, maternity services and maternity care policy developers. Specifically, millennial parents want trustworthy and accurate antenatal education that is delivered in a framework that aligns with and builds on adult-learning principles. The diversity of families and of expectant parents' learning styles is also important to recognize in antenatal education curricula.

Keywords

adult learning, antenatal education, online learning, parents' views, pregnancy

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Introduction

Women were historically supported in their pregnancy, birth and parenting journeys by other women in their communities, with knowledge and information about this transition to motherhood shared informally and incidentally.[1] With the increased medicalisation of pregnancy and birth, and hospitals becoming the predominant place of pregnancy care and birth, women have come to depend less on their community avenues of informal support and information, in the process losing valuable knowledge about, and confidence in, the birthing and parenting processes.[2] Antenatal education classes and programmes were developed partly in response to this resulting knowledge and confidence gap.[2]

As a concept, formal antenatal classes have existed for over 50 years.[1] These programmes have been recognized as important and influential public health measures, with the potential to impact women's attitudes and behaviour around maternal and newborn health.[3,4] Reported advantages include increased confidence and self-efficacy for women during the perinatal period,[5] reduced maternal stress,[6] decreased rates of caesarean birth[7] and reduced use of intrapartum epidurals.[6] Antenatal education programmes have also facilitated parents-to-be to gain skills and knowledge around aspects of parentcraft, enhance parental emotional wellbeing and encourage nurturing for babies and couple relationships in the postnatal period.[8] Downer and colleagues[10] argue that participation in antenatal education may promote health literacy for women, supporting them and empowering them to be active participants in the decisions around their perinatal care.

While preparation for childbirth and parenting classes are viewed by many as an important public health measure to support positive outcomes and experiences,[3] others caution that these classes may be ways in which parents may be essentially socialized into the medical domain of hospitalized childbirth.[9] To this end, recent research suggests that women who have attended private antenatal and parenting education classes, as opposed to hospital-sanctioned classes, are more prepared and likely to question hospital policy or caregiver decisions that they may be presented with once they fall under that facility's umbrella of care.[10] In addition, concern has been raised around antenatal education falling short with regard to its potential impact on perinatal health and outcomes, with missed opportunities and inappropriate curriculum design.[11,12] There has also been much discussion around the lack of adult-learning principles from an andragogical perspective employed to inform antenatal education curricula.[12–14]

Andragogy is an Ancient Greek term meaning 'man-leading' that was introduced into contemporary learning and teaching in the United States in the 1970s by educationalist Malcolm S Knowles. In 1980, Knowles documented four characteristics of adult learners that distinguish them from child learners, and went on to add a fifth in 1984. That same year, Knowles put forward four principles that should be applied in adult learning and teaching that support those assumptions, and in the interim these have been extended to six. The six principles of andragogy are (1) learners have a need to know (what, why, how); (2) self-concept of the learner: adult learners are autonomous and self-directing; (3) prior experience of the learner: adult learners are a teaching resource in themselves; (4) readiness to learn: adults learn best when their learning is life-related and developmental; (5) orientation to learning: learning should focus on a problem that is relevant to the learner and their context; and (6) motivation to learn: the learning activity should have intrinsic value and personal payoff.[15]

A further criticism in the literature is that antenatal and parenting education curricula consist of what educators/facilities believe is important to present, rather than what the participants wish to discuss.[3] This is at odds with adult-learning principles and discourages active, engaged learning.[15] Despite this, recent research by Hay et al.[16] identifies women's perceptions of the importance of childbirth education classes as a major source of information during the antenatal period. This echoes the findings from an earlier study conducted in Victoria, Australia, wherein the majority of women participated in antenatal education classes and found these to be beneficial in preparation for birth and parenting.[5]

While consensus around universal content for antenatal education programmes remains elusive,[17] many agree that there needs to be ways to ensure quality.[10] In Australia, the domain of antenatal and parenting education courses, and their various educators, remains largely unregulated, with a variety of non-uniform approaches and largely unknown outcomes.[11] However, advances have been made, with the development of research informed recommendations and competency standards to guide antenatal education programme content and programme facilitators.[1]

Guidelines for antenatal education produced by Queensland Health[18] emphasize that antenatal education programmes need to respond to the requirements of a particular community or cohort. This aligns with the key adult-learning principle of relevance and real-world applicability[15] – if parents are unable to recognize how the content and delivery of the programme relates to them, they will be more likely to disengage.[4,19] Scientific literature on the subject of antenatal education identifies numerous aspects parents want included in antenatal education, including information around labour and birth, parentcraft skills, breastfeeding and psychological health.[3,20–22] Parents also reportedly want the opportunity to engage in peer interactions, to share experiences and to connect with educators and other participants.[3,11] Evidence also suggests that expectant parents want to be able to access trustworthy antenatal education, they want to be able to identify their own learning needs and they want to be able

to engage in quality antenatal education when and how it suits them.[21,23,24]

This flexibility and accessibility are key attributes of online antenatal programmes.[25] Even before Covid-19 lockdowns and restrictions led to the widespread disruption to traditional, face-to-face antenatal programmes, an increasing number of online antenatal interventions and programmes were evident.[2] Such programmes had demonstrated being able to potentially reach a wider cohort of participants, as well as efficiencies of time and resources.[25–28] Availability of such programmes also aligns with the expectations of many of the next generation of parents, who expect to be able to access reliable information at anytime from anywhere.[24,25,29] Hay et al.'s[16] recent research supports this phenomenon and reports that a large number of women access the Internet for antenatal education. This was of particular importance during the Covid-19 pandemic, when antenatal education online was predominantly the only form of such programmes available to parents.[28,30,31]

While access to online programmes has been positive and important during the pandemic,[28,31] Nolan[30] cautions about exclusive online antenatal education. Concerns have been raised around parents not experiencing the optimal antenatal education environment when participating online, with challenges such as diminished opportunities to form relationships or connections with other parents, incidental interactions with educators and negative effects such as 'Zoom fatigue.'[30]

Despite guidelines highlighting the importance of determining what is important to parents in the design and delivery on antenatal education,[1] scant research to date has reported on parents' experiences of undertaking online antenatal education. This article seeks to contribute to filling this gap, exploring the experiences of a cohort of parents engaging in online antenatal education. In addition, this article aims to explore how parents would like this education to be structured, providing important insights into the future development of online antenatal education programmes and courses.

Methods

Design

A descriptive mixed-methods survey method was used for this study. The data represented in this article reflect one element of the survey: participants' responses to open-ended questions in which they were asked to share their views about the design and delivery of online antenatal classes.

Setting and sample

The study was conducted with past participants in the 'Nourish Baby' programme delivered by Australian private antenatal and early parenting education provider Ternity Group Pty Ltd. 'Nourish Baby' is a suite of four discrete self-paced online courses, namely, 'Guide to a Healthy Pregnancy', 'Guide to a Positive Labour and Birth', 'Guide to Feeding Success' and 'Guide to Babies: Birth to 12 months'. Each course includes information in written format and short video clips as well as links to further relevant resources, is synchronous so can be completed whenever convenient, and the information can be accessed as many times as enrolees wish. Enrollees into each course also receive a weekly 'tips' email. At the time of writing (December 2022), the cost of each course with unlimited access was AU$49, or all four courses could be purchased as a bundle for AU$169.

Study participants

Two thousand past participants who had enrolled for one or more Nourish Baby courses between 2016 and 2021 were eligible for inclusion in this study and were invited by email to take part in this study. The email contained the link to the online survey, and informed consent to participate was obtained by implication if those invited completed and submitted it; this was clearly outlined in the invitation email and in the detailed participant information section at the start of the survey. The invitation was issued once only; no reminder emails were sent.

Data collection

The online survey was administered using REDCap™, which is an electronic data capture programme. Participants were asked several closed and open questions about course design, delivery and content in general as well as open and closed questions specific to the course/s they completed. Skip logic was applied so participants could navigate easily to the questions about the course they wished to provide their views about once they had completed the generic questions. The generic questions and an example of course-specific questions are provided in Table 1 (included as a supplementary file). It is the data provided in response to one question, 'Is there anything else you would like to say about the design and delivery of the Nourish Baby courses?' that are reported in this article.

Data analysis

A generic thematic analysis (TA) approach was used to analyse data. TA is a method of making meaning of qualitative datasets; it involves systematically processing data through steps of data coding to the development of themes.[32] For this study, the raw data were coded (i.e., the key phrases in the data that would help answer the question asked of participants) were extracted and alike codes were then grouped in to the three themes reported below.

Trustworthiness measures

The second author conducted the initial coding of data; however, the categories derived from those codes were discussed and confirmed by all authors. No checking for veracity with participants was possible, however, because the study was completely anonymous.

Results

Of the 2000 past enrolees in the Nourish Baby courses invited to participate in this study, 294 (15%) did so and of those, 108 (38% of the study participants) provided responses to the open-ended question reported in this article. These findings are represented in three categories: video control and content, accessibility and pre-/intra-programme support.

Video control and content

Many participants expressed their satisfaction at having a proportion of the education delivered via video presentations. The short videos were perceived as an extremely valuable and accessible method to receive information, with the content presented greatly enhancing participants' feelings of preparedness for labour, birth and the transition to parenthood. A number of participants identified that when the educational material and information were delivered via video, they felt more able to integrate and internalize the information and retain this knowledge, and felt they had a much better understanding and grasp of the messages conveyed. Participant 126 stated that 'It's so hard to take information in when you read it yourself rather than when someone speaks it to you' and went on to sum up the value of the information conveyed via videos:

> When people speak the information to me, I can remember much more.

This preference for the majority of information to be delivered via video was a consistent theme, with many participants identifying that their preference would be to have a video option for each lesson, and an increased number of video presentations across the programme.

Participants also flagged that having subtitles and/or transcripts for the videos would be beneficial. They indicated that this was for a variety of reasons. Some participants perceived that having subtitles would assist them in assimilating and integrating the content, with information being delivered simultaneously but in two different formats. For others, the availability of subtitles or captions was more to do with flexibility and time management. Some participants explained that transcripts would mean they could read the content in locations not conducive to video watching:

> I'd prefer the transcript to be made available as I may not be in a convenient location to watch the video. (Participant 212)

Others flagged that subtitles meant they would be able to 'multitask' during the delivery of the content:

> I often wanted to do the courses while watching TV and so don't want to have to listen to something with sound. (Participant 112)

This expressed desire by the participants for an increased sense of control over the delivery of the content was reiterated numerous times throughout this evaluation. Many participants suggested that the ability to be able to skip sections or content, for example, if they felt they had sufficient knowledge in a particular area, or if they wished to skip the introductory sessions or sections presented in different languages, would enhance their experience of undertaking the programme. Similarly, a number of participants suggested that an ability to have control over the speed of the video playback would be beneficial, allowing them to speed up or slow down sections as required.

Many participants identified receiving a visual affirmation of their completed components of the course as important. Not only did this potentially contribute to a sense of achievement and accomplishment, but it was also flagged as important for navigating around the multiple components of the course – participants could identify which sections they had completed and which sections were yet to be undertaken. This element of ease of navigation leads to the next category of findings – accessibility.

Accessibility

The accessibility, ease of navigation and flexibility of the programme were all elements that were praised by participants and highlighted as important considerations when undertaking an online childbirth and parenting education course. Participants used terminology such as 'user friendly' when describing their interactions with the portal, and many were extremely satisfied with, and noted the importance of, compatibility across platforms. When there were technical issues, participants appeared willing to try workarounds and troubleshooting, for example, swapping browsers if a programme was slow to launch.

A large number of participants highlighted that the flexible nature of the programme was a significant, positive element for them. This flexibility was evident in a variety of ways, with the concept meaning different things to different participants. For example, many participants expressed gratitude and satisfaction that they could complete the course when it suited them. This meant they could assess the time they had available, and subsequently tailor engagement with modules of the course to fit in to their schedules and timelines:

> It was easy to do bits here and there when time allowed. (Participant 281)

> I appreciate that I can log into the modules at any time. (Participant 270)

> I loved the way I could do it all in one go if I had the time. (Participant 62)

Participants also spoke of the benefit of being able to repeat sections of the course and revise topics at a later date. This was flagged as important for a number of reasons. Participants were reassured that the information was there for them if and when they decided that they needed it – they could determine whether they wanted to revise certain content, and they appreciated the information being accessible and contained within the one programme:

> I love that you can redo chapters down the track, knowing that the information is there at your disposal. (Participant 199)

> I could read everything as many times as I wanted and it was all in the one spot. (Participant 284)

Some participants highlighted the benefit of being able to revisit certain sections with their partners, so that their partners also had the opportunity to engage with the content. Others appreciated the flexibility of being able to revisit and access certain topics or content as it became more relevant to them:

> only when we experience every situation can we appreciate and understand the knowledge that is available in this course. That's why it is great to have them available, so anytime we can go back and read the information that's needed in the particular situation we are going through. (Participant 184)

Being able to identify what was of relevance to participants at that particular time, and then being able to access and revise those pertinent aspects of the programme, was a dominant theme throughout this evaluation. Participants appreciated the flexibility of being able to regulate the amount of information they were exposed to at different times, and rather than feel pressured to have to remember the entirety of the programme, they could simply focus on what was important to them at that moment and access appropriate sections of the course:

> being able to access the modules after birth is incredibly valuable as it is a lot of information to absorb and may be helpful to go through certain aspects again. Now that the baby is born, we are putting some of these teachings into practice. (Participant 271)

> I sometimes forgot what I read so I feel like I might want to go back and re-read thinks to make sure I haven't missed anything important about what I can do to promote my baby's development. (Participant 193)

Our findings also emphasized that participants found the content to be helpful, appropriate and trustworthy, with many participants identifying that they would re-access this information as their children progressed through various developmental stages, for example, transitioning from breastfeeding to solid foods. A number of participants also indicated their desire to re-access this information when they conceived again in the future, highlighting a degree of trust and reassurance with regard to the programme:

> I did and still have a lot of anxiety around labour, so I would like to access this resource if I get pregnant again. (Participant 140)

While the elements of flexibility and accessibility were highly recommended and desired elements of the programme, many participants also spoke about the need for real-time contact and engagement. This leads to our third identified theme of pre-/intra-programme support.

Pre-/intra-programme support

Participants highlighted that they appreciated and felt great support from the time-specific, content-rich emails they received during the programme. Once again, elements of accessibility and time management were raised here, with participants thankful that useful, relevant and trustworthy information came directly to their personal email boxes at certain points in their pregnancies or parenting journeys, allowing them to focus directly on information specific to that time:

> The emails at different milestones were fantastic. . . I found them the most accessible. This is because they are brief overview of what was coming and straight into my inbox. (Participant 140)

> The timing in which [*sic*] the information was sent (for example, what to expect in week 10, what to expect in week 26 etc) was great. They suited exactly what I was experiencing at the particular time. (Participant 186)

This personalized contact seemed to resonate deeply with a number of the participants, with some requesting that there be more opportunity to receive the targeted emails, while others suggested that opportunities to engage with educators in real-time would add benefit.

Some participants flagged that despite having ongoing access to the comprehensive content as well as receiving the gestation/time-point-specific information-rich emails, they still had questions that they would like to ask. All of the suggestions provided by the participants were for these opportunities to be in real time, whether it be via a social media live-stream function, an inbuilt 'chat' function embedded in the programme material, or access via a video-conferencing platform such as Zoom. Participants perceived that in-person, real-time engagement would

provide extra support and guidance specific to their particular needs:

> Perhaps there should be a chat option for parents to use to find specific information and guidance particular to them . . . being able to talk to someone for guidance. (Participant 242)

> If there could be a live component where you are able to ask questions – would make the experience even more valuable. (Participant 67)

Participants also suggested that having some guidance around when it was most appropriate to access components of the course would be beneficial. Some parents stated that they felt like they accessed the course too late in their pregnancy, therefore 'missing out' on important information that was relevant for the first and second trimesters:

> I was advised to watch them by 32 weeks pregnant. It would have been good if I was told to watch them earlier. I had started the course at 28 weeks pregnant so the first and second trimester sections were largely irrelevant by then but had useful information. (Participant 75)

A number of participants explained that they had only learnt of the existence of the course later in their pregnancy, and once they enrolled in the course, they felt time pressure to get through the modules and content:

> I would have liked to have been informed about this course earlier in my pregnancy – perhaps halfway through at least so I could take my time reading all the information. (Participant 101)

> Trying to do the course after the baby arrives is not achievable. (Participant 120)

Discussion

The purpose of this section is to consider the findings of our study in the context of other published research on the topic of parents' views about the way in which antenatal education is delivered. Other published research about antenatal education, however, has focused on its impact on outcomes, on the effect of different approaches or on attendees' experiences of specific programme content aspects (see Montague et al.,[33] Mousavi et al.,[34] Demirci et al.[35] for recent examples). In contrast, there are no previous published accounts of parents' views on programme format. It is not possible, therefore, to compare and contrast our participants' views about how antenatal education is delivered with those of others. It is possible, though, to consider some of our findings against other research.

Many of the findings identified in this study as important to parents engaging with online antenatal education align with principles of adult-learning theory (described above in the 'Background' section), and support the recommendation that antenatal and parenting classes be structured with consideration of these.[1] This cohort of parents was digital natives, able to access and navigate online antenatal education, and to troubleshoot technology challenges when required.[24] Many contemporary parents are frequently online, digitally connected and extremely comfortable seeking information and education via the Internet.[20,36] Interestingly, while recent research highlights the commonality of parents accessing information online,[16,37] it is also reported that some parents perceive this form of education less trustworthy.[37] The question of quality has been raised numerous times in the literature, with concerns that parents may find it challenging to identify what is accurate and evidence-based information as opposed to that which is unregulated and unsubstantiated.[2,30] However, online sources of antenatal education are almost certainly here to stay, and so the challenge is for designers and facilitators of online antenatal education to scaffold and support parents to develop skills to identify and recognize quality online information and where to find it.[4,37]

The participants in this study identified the importance of time efficiency and emphasized the significance of being able to access information when it suited them, as well as being able to 'multitask' while engaging in the programme. This concept of time efficiency is recognized in the literature as an important consideration for contemporary parents.[27,28] This flexibility affords parents multiple freedoms in terms of deciding when, where and how to access antenatal education. Kovala et al.'s[3] research identifies the link between online antenatal education and the participant being the one to set the pace, again emphasizing the adult-learning principles centred on self-directed and relevant education.[15] Interestingly, while our participants highlighted the importance of being able to set their own pace depending on their needs, a number of them also flagged that they would have appreciated more direction around what gestation to engage with or complete the online antenatal programme. Wadephul et al.[8] suggest that providing some extra scaffolding or guidance around expectations of the programme may support participants to engage more deeply and sustainably, while in terms of timing, antenatal education recommendations in Australia suggest that a range of programmes across the pregnancy continuum, with the inclusion of pre- and early-pregnancy options, should be available.[1]

Linked to this concept of the time is the notion that parents perceive they have control over how they are engaging with and receiving antenatal education. This concept of control was linked to not only parents being able to decide when they accessed antenatal education, but also the content with which they engaged. This may be directly linked to the adult-learning principles of identifying their own learning needs and thus being self-directed in the aspects of the programme they chose to engage with.[15] However, it may also tap into the idea that determining when and how to engage with online antenatal education is one aspect of their life over which they still have some self-determination and autonomy. Pregnancy and the

transition to parenthood can be a time of significant upheaval, vulnerability and uncertainty for parents, and for some, any element of control may be a welcomed phenomenon.[8] This ability to determine and select what is relevant to one's own learning needs is a developing theme in the literature, with a variety of hybrid antenatal models being offered. While this may be a way in which an organization or educator can get maximum reach to potential participants, it is also a way in which to enhance flexibility, and potentially link to participants who would otherwise not be able to engage in purely face-to-face physical classes.[3,31]

The literature highlights that parents become frustrated when their learning needs are not met and if there is limited opportunity for them to actively engage in and prioritize their learning.[13,38] The participants in our study certainly emphasized the importance of being able to self-select which aspects of the programme they devoted most time to and which components would best meet their learning needs. This recognition that parents are a diverse cohort of learners and that 'one size does not fit all' when it comes to antenatal education is a common theme in both the adult-learning and antenatal education domains.[15,37] Indeed, Australian antenatal education recommendations emphasize the importance of context and circumstance when designing and delivering antenatal education.[1] Our participants also emphasized the importance of being able to revisit and revise certain topics or sections if they felt the need to, and could do so in private, in their own time and with no fear of judgement at needing to go over things more slowly or more than once. The literature suggests that this concept of being able to revisit or revise online information in one's own time may contribute to parents being able to experience decreased feelings of anxiety or tension, and increased feelings of self-efficacy and confidence with regard to their transition to parenthood.[2,3]

A recurrent theme in the antenatal education literature is the importance of peer support and interaction during the antenatal programme and the opportunity to form social connections with other parents-to-be.[8,21,23] This principle is also emphasized within antenatal education recommendations, with two of the recommendations put forward by Smith and Homer[1] centred on peer support. Interestingly, while our participants emphasized their desire to have more access to a facilitator, and the chance to have discussions or ask questions synchronously, they did not discuss or nominate a desire to connect with peers. This may be due to the nature of the self-directed, online antenatal programme or it may be that as first-time parents, they may not appreciate the value of peer support in this circumstance or have insight into the potential benefit of such connections.[23]

The study reported herein is limited by the fact that the sample is relatively small in relation to the available study population so cannot be claimed as representative of that population's views, and we are unable to report the sample's characteristics or claim the sample is socio-demographically representative because no participant demographic data were collected. Furthermore, as with any qualitative data collected in anonymous surveys, any ambiguity in the data could not be clarified. Despite these limitations, the aims of the study, which were to explore the experiences of a cohort of parents engaging in online antenatal education and discern how parents would like this education to be structured, were achieved.

Conclusions and recommendations

Our study demonstrates the importance to parents to have autonomy and control over accessing antenatal education that is relevant to them, in ways that support their learning. Millennial parents are adept at seeking out online antenatal education sources; however, they want to ensure they are accessing trustworthy and accurate information. Ensuring antenatal education aligns with established guidelines and the established evidence base is crucial, and designing programmes in consideration of these frameworks will enhance their reliability and rigour. In addition, antenatal education programmes that align with and build on adult-learning principles are essential, as is the recognition of the diversity of participants, not only in their learning needs, but how and when they wish to engage with content. The advent of multiple online platforms and formats opens the way to increased flexibility and diversity, and the aim should be to increase accessibility for those parents who would otherwise not be able to engage with or benefit from antenatal education.

While our participants highlighted the potential need for increased support from, and access to, the antenatal educators facilitating the classes, they did not highlight the need for peer support or social contact. This contrasts with the antenatal education literature. Going forward, including scheduled online webinars may help fulfil this need, and perhaps also foster social connection to other parents-to-be.

Declarations

Ethics approval and consent to participate

Approval to conduct this study was given by Australian Catholic University Human Research Ethics Committee (record no. 2020-178E). Informed consent to participate and for the results of this study to be published were obtained from all participants.

Consent for publication

Informed consent for the results of this study to be published was obtained from all participants.

Author contribution(s)

Heather Julie Wallace: Conceptualization; Data curation; Formal analysis; Investigation; Methodology; Writing – original draft; Writing – review & editing.

Sara Bayes: Conceptualization; Data curation; Formal analysis; Investigation; Methodology; Project administration; Writing – original draft; Writing – review & editing.
Cindy Davenport: Conceptualization; Data curation; Investigation; Project administration; Resources; Writing – review & editing.
Melissa Grant: Conceptualization; Data curation; Methodology; Project administration; Resources; Writing – review & editing.

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Availability of data and materials

All raw data are available from the authors.

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Supplemental material

Supplemental material for this article is available online.

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