Science of Nursing and Health Practices

Science infirmière et pratiques en santé

Article court | Short article

Social Media Recruitment: Lessons from a Pilot Study Incorporating a Digital Breastfeeding Intervention

Recruter à l'aide des médias sociaux : expérience d'une étude pilote impliquant une intervention éducative sur support numérique

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ISSN 2561-7516

INTRODUCTION

Recruitment strategies are essential for achieving a priori sample size and ensuring sample representativeness (Flanagan & Beck, 2025). Challenges during recruitment can affect the methodological quality of a study and may also lead to ethical, financial, and clinical issues (Flanagan & Beck). It is estimated that up to 80% of randomized controlled trials (RCTs) do not reach their planned sample size, and 11% fail to recruit even a single participant (Bogin, 2022; Herbell, 2019). The Lasagna's law may explain these recruitment difficulties, as it suggests that only about one-third to one-tenth of the targeted population is available to participate (Feinstein, 2001). Therefore, addressing methodological issues and adopting effective recruitment strategies are crucial.

Evidence indicates that social media has positive effects on recruitment in research studies. Compared to traditional methods, it shortens recruitment times, enhances access to diverse or hard-to-reach populations, and reduces costs (Ashfield et al., 2024; Pekarsky et al., 2022). However, some challenges have been reported regarding the use of social media, such as difficulties in joining specific groups for research advertising, such as parenting groups (Ashfield et al.) or groups for pregnant women with certain health conditions (Herbell, 2019). Ethical concerns regarding privacy and data protection have also been documented (Audet et al., 2024). Fees may also apply if paid advertisements are used to enhance the visibility of recruitment information (Ashfield et al.). Fraudulent responses have also been reported in studies involving incentives (Pekarsky et al.).

While the literature highlights both the potential and the pitfalls of social media recruitment, little is known about how these challenges manifest in concrete research contexts and how teams adapt to overcome them.

OBJECTIVE

This short paper presents and discusses the challenges faced during the recruitment phase of a breastfeeding pilot study and proposes possible solutions to address these issues.

METHODS

Social media recruitment was used in a pilot study to assess the feasibility, accessibility, and impact of a digital educational intervention aimed at enhancing breastfeeding self-efficacy. Inclusion criteria were being at least 18 years old, able to read and write in French, residing in Quebec (Canada), being a first-time mother of a single baby gestating at 37 weeks or more, and planning to exclusively breastfeed. The target sample size was 60 participants (30 per group). Based on Quebec's birth rate data, we aimed to recruit 20 participants each month over a 6-month period. The recruitment process used Facebook media, enabling participation from individuals across the Province of Quebec with diverse sociodemographic backgrounds. A poster advertisement was created and posted on the researchers' Facebook profile and shared in Facebook groups for breastfeeding parents, with instructions to share further to increase visibility (Collette et al., 2023). Interested participants were asked to click on a "LimeSurvey" link for more details about the project, provide informed consent, and answer a few questions to determine their eligibility. After giving consent, participants were invited to complete Breastfeeding Self-Efficacy (BSE) (Dennis, 2003) and Perceived Insufficient Milk Supply (PIMS) (McCarter-Spaulding & Kearney, 2001) questionnaires at 4-time points: prenatally, 48 hours postnatal, and at 2 and 4 weeks after birth. Recruitment and data collection took place between August 2023 and May 2024.

The feasibility of the pilot study was assessed by recording the participation rate (the number of clicks on the link included in the ad), the use of the intervention site (the number of visits), retention, and data collection processes, including response rates and missing data. The acceptability of the intervention and data collection methods was assessed using an adapted version of the Treatment Acceptability and Preference Questionnaire (Sidani et al., 2009) at 1 month postpartum.

Figure 1

Diagram for the Flux of Participants Through the Pilot Study

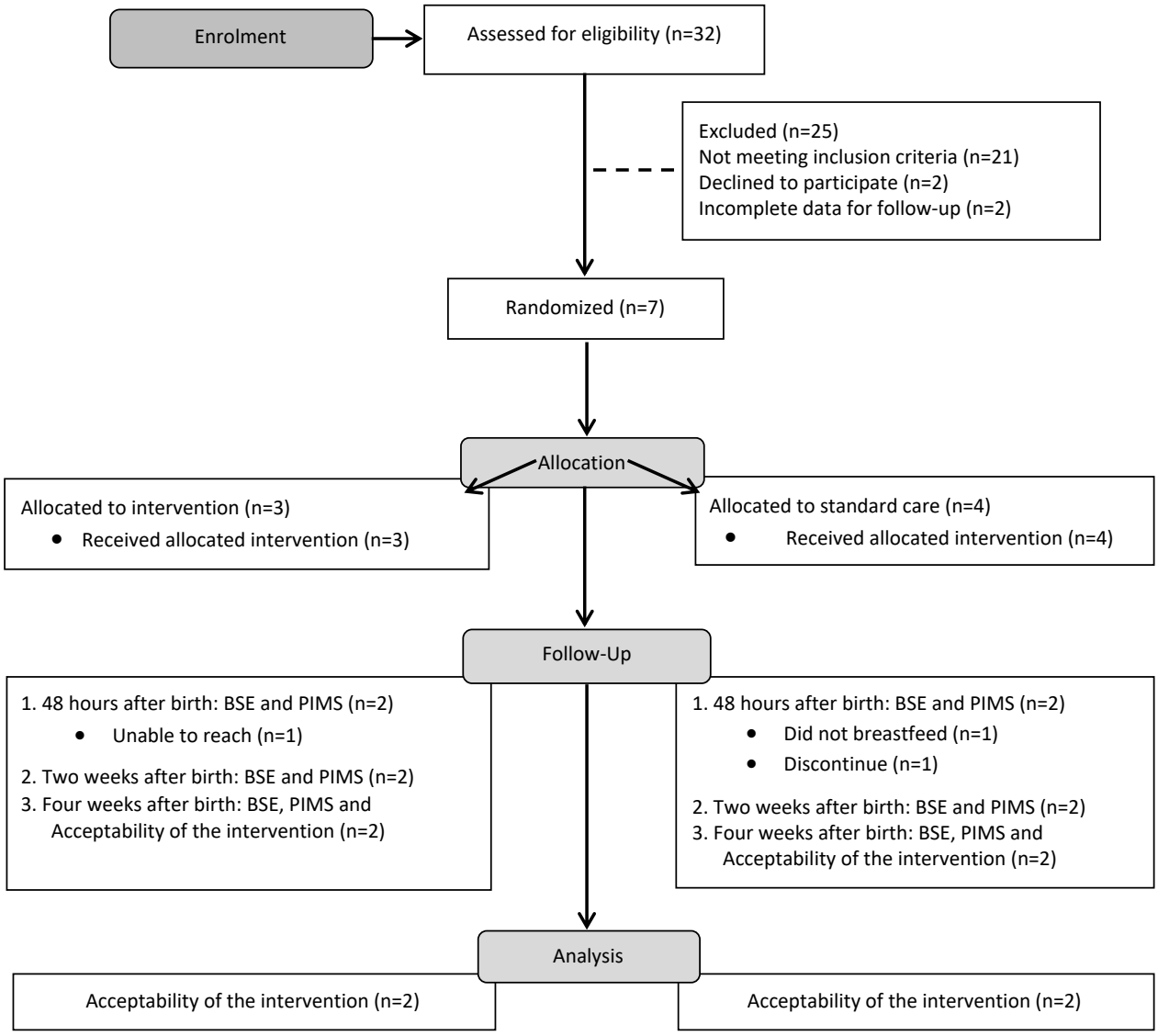

Table 1

Sociodemographic Characteristics of Participants with Inclusion Criteria of ≥ 30 Weeks of Gestation (n=6[a])

Variable	n	Mean
Age	6	28.7 years old
Length of time with partner	6	4.6 years
Variable	**n**	**%**
Education level		
Professional	1	16.7%
Collegial	1	16.7%
University	4	66.6%
Employment status		
Full-time	5	83.3%
Part-time	1	16.7%
Family income		
40 000 – 49 999 CAD$	1	16.7%
60 000 – 69 999 CAD$	1	16.7%
More than 100 000 CAD$	4	66.6%

Note. [a]Missing data for a participant.

The study received approval from the principal investigator's university ethics committee.

Results

In our study, we posted a free advertisement on Facebook in various groups and on researchers' personal pages. After 3 months—a period deemed sufficient for publicity and engaging different groups—only one person chose to participate. Based on this result, we decided to increase our visibility by using other social media platforms, such as LinkedIn and Instagram, which were approved by the ethics committee. We also chose to revise our inclusion criteria by lowering the gestational age to 30 weeks, following participant requests in the comments for earlier inclusion. Over the 10-month period, there were a total of 32 clicks on the recruitment link, with seven individuals agreeing to participate. The diagram illustrating the flow of participants through the pilot is shown in figure 1.

Regarding the sociodemographic characteristics of the participants (Table 1), they were mainly individuals with higher education levels and high incomes. Two participants assigned to the intervention either did not consult it or only did so once. They reported that they found it useful for breastfeeding information and increasing their BSE, but not for their PIMS. At this point, we decided to terminate the study, as no financial or human resources were available for exploring other means of data collection.

Discussion

Our pilot study found that using social media for recruitment was unsuccessful. Although we used Facebook, LinkedIn, and Instagram, and adjusted one of our inclusion criteria, we couldn't recruit enough participants in a timely manner. The

limited number of clicks and eligible participants over 10 months led us to stop the study. Nonetheless, we believe it is important to share these challenges and suggest ways to avoid them in future research.

In our study, the sociodemographic characteristics of the participants were specific (high education level and income). Although the sample size was small, it seems that an inherent selection bias existed, like traditional recruitment methods. While social media recruitment offers greater access to a diverse population compared to traditional methods (Ashfield et al., 2024), some challenges in reaching diverse pregnant participants have also been observed (Herbell, 2019), as was the case in our pilot study.

The timing of recruitment might explain some of the challenges faced. In our pilot project, recruitment occurred during the prenatal period. Since our project's focus is on increasing BSE among first-time mothers to help them prepare for potential breastfeeding difficulties, it might not attract participants because they haven't yet experienced breastfeeding. Like any RCTs, the participants may not be randomized into the experimental group but may instead receive usual care. Our pilot project involves two websites well known to parents during the perinatal period, which might have led participants to perceive that there was no added value in taking part in the study. Since they already had access to these websites, it may seem to them that control group participants did not gain a real benefit from participating. Consequently, potential participants might prefer to be in the intervention group and choose not to participate to avoid being randomized to the control group (Bogin, 2022).

Social media platforms might be more suitable for certain research designs, such as cross-sectional studies rather than RCTs or longitudinal studies, as they would imply more than one data collection's time (Thornton et al., 2016). Even though we were aware of potential difficulties associated with using social media recruitment in RCTs study design like ours, we considered that potential benefits, such as the ability to reach a diverse population in a timely manner, outweighed the anticipated difficulties. However, in our study, recruitment issues emerged earlier than expected, during the first wave of data collection. This experience highlights the importance of considering not only the study's design but also the characteristics and accessibility and potential interests of the targeted population. Therefore, two important questions must be considered in the phase of study design definition: "To what extent does our study design align with the strengths and limitations of social media recruitment, and does it effectively reach the intended participant groups?" Combining social media recruitment with traditional methods, like on-site recruitment, could be beneficial, as it provides an opportunity to better explain the study design (Audet et al., 2024). In an era dominated by TikTok and Reels, it is also possible that the format of our educational intervention was not engaging, as suggested by the two participants allocated to the intervention, who mentioned they didn't consult it or only did so once. The Lasagna's law may also explain challenges in recruitment. Although our pilot project had a small sample size, we may have overestimated how easy it is to recruit participants using social media. Overestimating the number of eligible participants is a common reason for recruitment failure (Flanagan & Beck, 2025). Understanding the population being studied and being realistic about sampling strategies and sample size are valuable solutions. In our study, there were no paid advertisements or incentives for research participation. We used only one recruitment ad (Collette et al., 2023), the one approved by the research committee. It was quite lengthy and contained no animation. Therefore, it might have been the combination of these factors that failed to attract participation.

However, we made these choices because increased costs, ethical issues, and fraudulent responses are more commonly reported when paid advertisements are used (Ashfield et al., 2024; Pekarsky et al., 2022). Including an expert on social media with research teams might be a possible solution. This expert should know how to use social media—such as posting ads, joining groups—and be aware of potential ethical issues, like the challenge of tracing interested participants when they comment in a group, and how to prevent fraudulent responses by creating engaging ads targeted at specific groups.

CONCLUSION

Recruiting through social media can provide benefits, like reaching a diverse group of people and faster recruitment compared to traditional methods, but this is not always guaranteed. Many challenges exist, and any researcher considering this recruitment method should be aware of these potential issues.

Authors' contribution: RG, VL and LL designed the study. RG collected and analyzed the data. RG and VL organized the article and prepared the first draft. All three authors revised and approved the final version of the manuscript.

Acknowledgments: The authors would like to thank the pilot study participants. We would also like to thank the contributing authors for the development of the intervention, RG and LL, but also Marjolaine Héon, Ph. D. and Aurélie Baillot, Ph. D.

Funding: RG and LL received funding for the development of the intervention from the *Réseau de recherche en interventions en sciences infirmières du Québec*.

Statement of conflict of interest: The authors declare no conflict of interest.

Reçu/Received: 6 Déc/Dec 2024 **Publié/Published:** 5 Nov/Nov 2025

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