

# The experience of remote recruitment for *Essential Coaching for Every Mother* during the coronavirus disease 2019 pandemic

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## ABSTRACT

**Introduction and aims:** Due to physical distancing recommendations because of the COVID-19 pandemic, recruitment approaches for perinatal research needed to shift from in-person to remote. The purpose of this study is to describe the recruitment and retention of women for an mHealth intervention study for *Essential Coaching for Every Mother*.

**Methods:** Three methods were used for recruitment: social media, posters in hospital, and media outreach. First time mothers were eligible for enrollment antenatally (37+ weeks) and postnatally (<3 weeks). Eligibility screening occurred remotely via text message. Outcomes were days to recruit 75 participants, eligibility vs. ineligibility rates, dropout and exclusion reasons, survey completion rates, perinatal timing of enrollment, and recruitment sources.

**Results:** Recruitment ran from 15 July to 19 September 2020 (67 days) with 200 potential participants screened and 88 enrolled. It took 50 days to enroll 75 participants. Women recruited antenatally were more likely to receive all intervention messages (68 vs. 19%) and miss fewer messages (6.4 vs. 13.8) than women enrolled postnatally. Participants heard about the study through family/friends (31%), news (20%), Facebook groups/ads (30%), posters (12%), or other (7%).

**Conclusion:** Antenatal recruitment resulted in participants enrolling earlier and receiving more messages. Remote recruitment was a feasible way to recruit, with word of mouth and media outreach being most successful, followed by Facebook.

**Key words:** coronavirus disease 2019, feasibility, mHealth, postnatal education, postpartum

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### What is known about the topic?

- Evidence from the United States suggests that postpartum women are interested in receiving text messages after birth (e.g. Text4Baby).
- Women are facing mental health challenges in the postpartum period because of the COVID-19 pandemic.
- Because of physical distancing recommendations during the COVID-19 pandemic, there have been limitations on the use of in-person recruitment.

### What does this article add?

- It is effective and efficient to recruit online for a postpartum text message research study.

- Canadian postpartum first-time mothers are interested in receiving text messages after birth.
- Despite the effective recruitment, it is important to validate and monitor recruitment against bots (i.e. autonomous program) or fraudulent actors.

### Introduction

respective of a pandemic, mothers living in Nova Scotia and beyond face gaps in access to information about postpartum care for themselves and their infant and often struggle to find adequate support during the

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postpartum period, defined as the first 6 weeks after birth.<sup>1–3</sup> These gaps may be magnified during the coronavirus disease 2019 (COVID-19) pandemic and may significantly impact the transition for new mothers.<sup>4,5</sup> Compliance with physical distancing recommendations contributes to mothers isolating at home, being physically isolated from not only health providers but also from their extended family and support systems.<sup>4</sup> In Nova Scotia, all public health drop-ins were closed indefinitely, and there was a reduction in in-person healthcare support, with midwifery-led home births and home visits temporarily deferred during the coronavirus peak from March to May 2020.<sup>6</sup> This significantly differed from precoronavirus procedures, where women were recommended to have a postnatal contact shortly after birth by a public health nurse<sup>7</sup> and women frequently engaged in visits with family, friends, or new parent groups.<sup>8,9</sup> Emerging evidence shows that the pandemic has resulted in 37–54% of women experiencing perinatal depression and 57–72% experiencing symptoms of perinatal anxiety.<sup>10,11</sup> Although healthcare providers and allied health professionals offer information and support during the antenatal period (e.g. antenatal check-ups, optional prenatal care classes) and during hospitalization after birth, evidence suggest that postpartum women are often overwhelmed, unsure about caring for their infant, and have concerns around infant feeding.<sup>12</sup> With the sudden decrease in in-person support and the increase in perinatal mental health concerns, innovative strategies, such as mHealth, are more important than ever to offer information and support during the postpartum period. mHealth, or mobile health, refers to the use of mobile and/or wireless technology to promote health.<sup>13</sup>

Prior to the coronavirus outbreak, the *Essential Coaching for Every Mother* program was developed in consultation with postpartum women and healthcare providers with the goal of improving women's psychosocial outcomes in the first 6 weeks postpartum.<sup>14</sup> Text messages provide information on infant care (e.g. feeding, sleep, normal development) and maternal mental health (e.g. self-care, postpartum depression) within the first 6 weeks postpartum including where to seek support if they need it. The goal of the program is to provide an additional avenue of information and support to postpartum women through mHealth to complement existing care and support while being consistent with information provided to postpartum women through the Loving Care educational booklets provided by Nova Scotia Health.<sup>15</sup> With the outbreak of COVID-19 in early 2020 and the readiness of the *Essential Coaching for Every Mother* program to fill the sudden gap in

A public health nurse should call within 3-5 days after discharge to ask how you are adjusting and answer your questions.

Given the coronavirus pandemic, support by your public health nurse may be provided over the phone or online.

Public health can be reached at 902-481-5800. You can also call 811 at any time, day or night, to speak to a Registered Nurse if you have any questions.

While there may seem to be a lot of 'don't' with COVID-19 recommendations, there are a lot of things you can still do to bond with [Child's name]

Adjusting to life with [Child's name] is an exciting time but also is a big change. Use this time to focus on your new family, without having to host visitors.

Spending lots of time holding [Child's name] skin-to-skin can encourage bonding. Spending time outdoors while safely distancing may help.

**FIGURE 1.** Examples of *Essential Coaching for Every Mother* messages relevant to coronavirus disease 2019. The first is a message that was revised to reflect the current standard of care in postnatal follow-up by a public health nurse, which increased from within 48 h to 3–5 days and may occur over the phone or online rather than in person. The second message is an example of a message that was added related specifically to postnatal care during COVID-19. COVID-19, coronavirus disease 2019.

postpartum support, a decision was made to modify the program to be offered immediately. Given that *Essential Coaching for Every Mother* was developed prior to the coronavirus outbreak but not previously implemented, some content modifications were necessary.

Messages were updated using the Government of Canada and WHO guidelines around mother-infant care and coronavirus<sup>16,17</sup> and followed the Government of Nova Scotia public health guidelines during the coronavirus pandemic.<sup>18</sup> A total of nine messages were modified from the original program to include information related to the coronavirus. To ensure that the revised content of *Essential Coaching for Every Mother* was appropriate and acceptable, the modified messages were piloted with women and postpartum healthcare providers who participated in the original development of the program. From the pilot, four messages were collapsed into two, and the other five revised messages were added to the program. This resulted in a total of 56 messages sent over a 6-week period, with messages provided two or three times per day during the first 2 weeks, and daily for the remaining 4 weeks. Figure 1 provides an example of two messages included.

With *Essential Coaching for Every Mother* modified for implementation during the COVID-19 pandemic, a challenge remained about how to optimally recruit for a

planned randomized controlled trial. Prior to the COVID-19 pandemic, the plan was to use an active, in-person recruitment strategy in hospital to recruit postpartum women who had recently given birth. However, because of physical distancing recommendations, hospitals reduced access of nonessential staff, removing this as an option. Although it was considered to involve the postpartum healthcare providers in recruitment, this added an additional burden to hospital staff during an already uncertain time and may have added a confounding factor if healthcare providers were aware of which patients were on study. Thus, exploration of passive recruitment strategies was required, prior to launching the randomized controlled trial, to ensure adequate recruitment could be reached, leading to this feasibility study.

### Objectives

This study sought to explore the feasibility of passive, remote recruitment of pregnant and postpartum women for the *Essential Coaching for Every Mother* pre-post intervention study to inform a larger randomized controlled trial.

### Methods Research design

This study uses a cross-sectional pre-post design.

### Study population and sample size

Between 2017 and 2019 at IWK Health, 4055 primiparous women gave birth.<sup>19</sup> Over a period of 3 months, approximately 500 postpartum women would be anticipated to be eligible to participate. To determine feasibility of recruitment, the goal was to recruit at least 15% of this sample ( $n = 75$ ) within 3 months. The recruitment goal for the randomized controlled trial is 140 participants,<sup>20</sup> so this estimated sample size was approximately half of what would be required.

To participate, women must have given birth to their first baby at IWK Health and live in Nova Scotia; have daily access to a mobile phone with text message capabilities; be over 18 years of age; and speak and read English. This study was limited to Nova Scotia, and in particular, those who gave birth at IWK Health, as some of the supports provided were geographically specific, such as re-directing participants to return to Early Labour and Assessment Unit at IWK Health if they had a health concern for themselves.

For context, Nova Scotia is located on the East Coast of Canada and makes up 2.6% of the Canadian population.<sup>21</sup> Canada has a universal healthcare system with healthcare managed provincially and free perinatal care available to all Canadian citizens and permanent

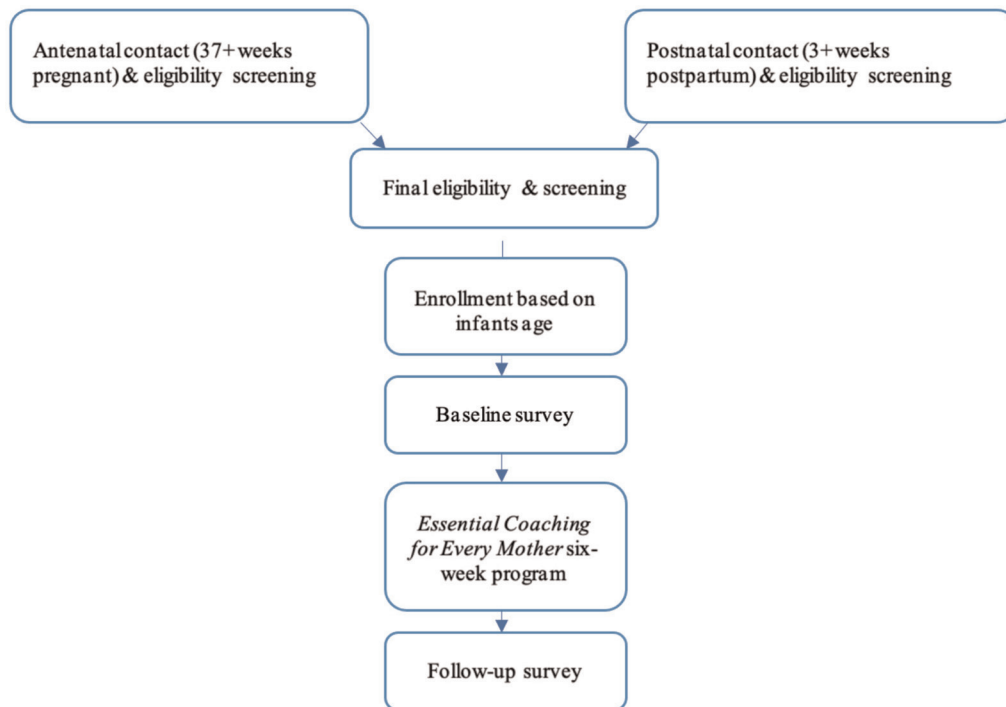
residents through public health insurance.<sup>22</sup> For postpartum support, Nova Scotia recommends follow-up at 1–2 weeks after birth and another follow-up at 6 weeks.<sup>7</sup> Women may be followed during pregnancy and postpartum by a family doctor, nurse practitioner, midwife, or obstetrician depending on their level of risk, access to different healthcare providers, and/or preference.<sup>7</sup>

Women were eligible to pre-enrol antenatally if they were at least 37 weeks pregnant and had not yet given birth. Although women could complete the eligibility screening while pregnant, they were not assigned a study ID (and thus enrolled) until they texted ‘delivered’ and provided their infants date of birth to start the messages and send the baseline survey. The antenatal time limitation was set to ensure participants would deliver within the 3-month recruitment period. Women were eligible to enrol postnatally up to 21 days following the birth of their child. The postpartum limit was set to ensure there was at least a 3-week gap between baseline and 6-week follow-up surveys and to ensure participants received enough of the message to provide evaluative feedback.

### Recruitment procedures

Three primary methods of passive recruitment were used: social media, posters in the hospital, and media outreach. First, targeted social media advertisements were used, including paid Facebook and Instagram advertisements, sharing in relevant Facebook groups, and tweets on Twitter. Social media outreach and paid advertisements started on 15 July and ran until 16 August 2020 targeting women of childbearing age who lived in Nova Scotia. Second, posters were placed in the IWK Health Perinatal Clinic and in each postpartum room on the Family Newborn Unit. Posters were placed on 5 August and taken down on 15 September. Finally, local media interviews also occurred with the first author after a media release was published by IWK Health on 5 August 2020, resulting in TV and radio interviews and newspaper articles.

All eligibility screening occurred remotely via pre-set text messages within the TextIt platform<sup>23</sup> with interested participants initiating contact. Pregnant women started the recruitment process by texting ‘pregnant’ to the study number and proceeded through the antenatal eligibility screening process. Eligible women were instructed to text ‘delivered’ after giving birth to be enrolled in the study. Women received reminder messages to text ‘delivered’ at 39,40,41, and 42 weeks if they had not yet enrolled or withdrawn. Women who were deemed ineligible as part of the antenatal screening because of being less than 37 weeks were sent a



**FIGURE 2.** Study enrollment and participation flow diagram.

message at 37 weeks to remind them to text ‘pregnant’ if they were still interested. This occurred until 27 August when the number of interested and enrolled participants was beyond the desired 75 participants.

Postpartum women who initiated contact using ‘birth’ proceeded through the postpartum eligibility flow. Once deemed eligible, postpartum participants and antenatal women who texted ‘delivered’ completed the same flow to be enrolled in the study and start receiving messages based on their infant’s birth date. During this phase, details about newborn’s name, preferred gender pronoun, date of birth, woman’s name, and preference for breastfeeding or formula messages were collected. This was used to personalize the messages with names and ensure messages were sent based on child’s age and preference for breastfeeding or formula messages. Additional details about content of the messages is available elsewhere.<sup>14</sup> The first message of *Essential Coaching for Every Mother* is designed to start the evening of the second day after giving birth. If a participant signed up beyond this time frame, they started the messages based on when they gave birth.

Participants were asked to complete a consent form and survey at baseline (survey #1) and once the messages ended at 6 weeks (survey #2). Participants were provided a link in a text message to an online survey

hosted in REDCap.<sup>24</sup> Surveys collected data on outcomes of interest including parenting self-efficacy, social support, postpartum anxiety, postpartum depression, and postpartum adjustment, with the results of the intervention reported elsewhere.<sup>25</sup> Participants were reminded about the surveys via text message six times (every 2 days) at each timepoint or until they completed the full survey. After 14 days, participants who had yet to complete the full survey were sent an email or text as a final reminder and it was assumed to be incomplete if a participant did not complete after this point. Participants who completed the full survey received a \$20 electronic gift card at each survey timepoint. Figure 2 outlines study enrollment and participation flow.

Messages were designed to be one way with no interaction between participants and the research team. If a participant texted the study number outside of when a response was expected (i.e. during enrollment), women received the following message: ‘Sorry, we didn’t understand that. Please try again. This number is not monitored. Please contact your care provider or call 811 if you are concerned about the health of yourself or [child’s name]. If you or [child’s name] are in danger or need immediate assistance, please go to the Emergency Room at the QEII (Woman’s name) or the IWK (Child’s name)’. This also triggered an email to a study team

member who checked the message from the participant during business hours (Monday to Friday, 8.00 a.m.–4.00 p.m.). If a women texted with a question of clarification during recruitment or related to the survey, the first author responded to provide clarification only. No engagement about the content of the program occurred between the participants and the research team while the *Essential Coaching for Every Mother* messages were being sent.

**Intervention procedures**

TextIt<sup>23</sup> was used as the platform to manage the message flows and capture participant contact information. It was used in conjunction with Twilio<sup>26</sup> as the server that sent and received the messages. Survey data were collected via REDCap.<sup>24</sup> Contact information was collected via TextIt, which was kept separate from survey data collected via REDCap. Ethics approval was obtained by IWK Health. All women provided written, online consent.

To determine feasibility, data on implementation extent was collected via output data available through the TextIt platform as well as REDCap. Specifically, the following outcomes were of interest: number of days required to recruit at least 75 participants; eligibility vs. ineligibility rates and reasons; dropout, exclusion, and baseline survey completion rates; enrollment rates based on antenatal or postnatal recruitment; and recruitment sources. For the outcomes identified above, the following information was used: the number of days from start of study to enrollment of 75 participants, total number of participants enrolled, and time required for recruitment; number of individuals who were eligible and enrolled in the study vs. the number of individuals who contacted but were not eligible (comparing both antenatal and postpartum ineligibility and reasons); the number of participants who withdrew or were excluded from the study and when (% completion, timing of withdrawal); comparing number and timing of enrollment (number of messages received, infant's age at enrollment, time of day of initial contact); and participant's self-reported source of where they heard about the study.

**Analysis**

Descriptive and summative analysis of TextIt and REDCap event data was used to examine the frequency and proportion of outcomes above.

**Results Participants**

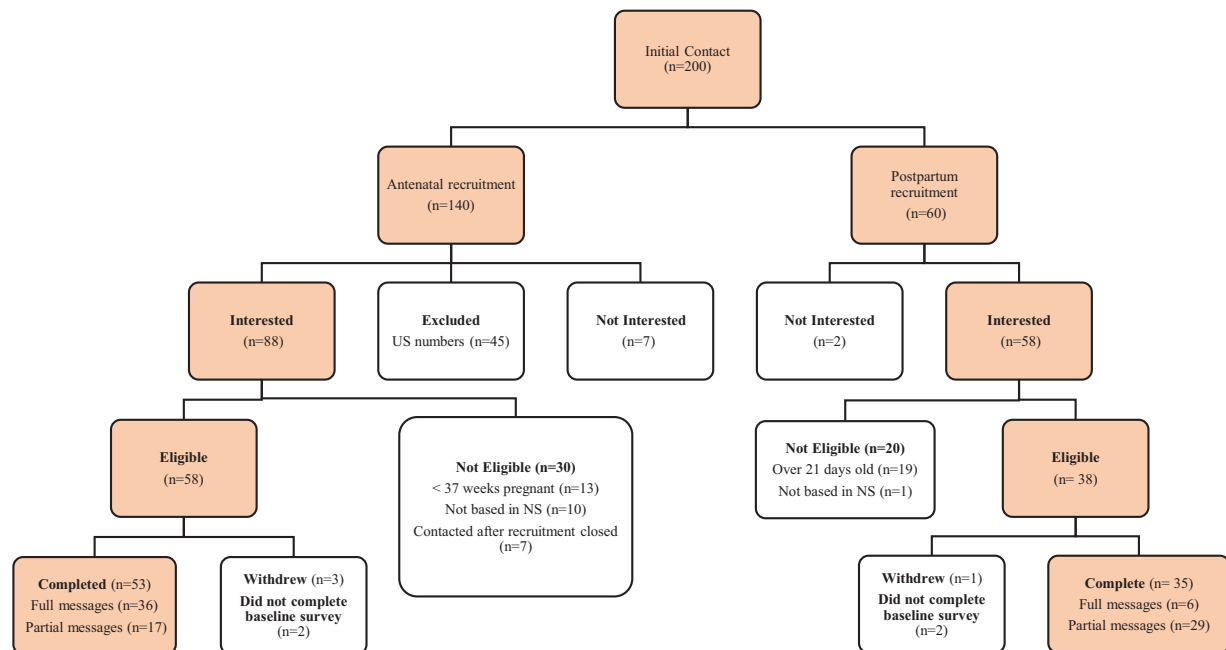
Of the 80 women who completed the demographic survey, they were on average 30.8 years of age [standard deviation (SD) = 4.7]. The sample was quite

**Table 1. Demographics characteristics of study participants who complete demographics survey (n = 80)**

Demographics	n (%) or mean (SD)
Maternal age (years)	30.8 (4.7)
Infant age (days)	3.3 (4.4)
Gestation at birth (weeks)	39.3 (1.5)
History of depression or anxiety	24 (30.0)
Sexual orientation	
Heterosexual	73 (91.3)
Bisexual	4 (5.0)
Prefer not to answer	3 (3.8)
Marital status	
Single	2 (2.5)
In a relationship	2 (3.8)
Common-law	21 (26.3)
Married	54 (67.5)
Number of infants	
Singleton	79 (98.8)
Twins	1 (1.3)
Race	
White	70 (87.5)
Asian	3 (3.8)
Black	2 (2.5)
Latin American	2 (2.5)
Other	2 (2.5)
Prefer not to answer	1 (1.3)
Household income (CAD)	
Less than \$49000	8 (6.3)
\$50000–\$99000	26 (32.5)
\$100000–149999	24 (30.0)
Over \$150000	18 (22.5)
Missing	4 (5.0)
Baby birth weight	
Under 2500g	2 (2.5)
2500–4000 g	67 (85.0)
Over 4000 g	11 (12.5)
Missing	
Birth method	
Vaginal birth	54 (67.5)
Unplanned cesarean	22 (27.5)
Planned cesarean	4 (5.0)

SD, standard deviation.

homogeneous – 98.8% had singleton births, 91.3% identified as heterosexual, 87.5% were white, and 93.8% were either married or common-law. Over half (51.8%) had a household income over \$100 000CAD, which is significantly higher than the Nova Scotia household income average of \$53 330CAD.<sup>27</sup> Women were on average 39.3 weeks pregnant when they gave birth (SD = 1.5 weeks, range = 33.5–42 weeks). Additional details on participants are provided in Table 1.



**FIGURE 3.** Enrollment flow.

### Timing required to recruit participants

The study opened on 15 July 2020, and closed on 19 September 2020. Over these 67 days, 96 participants were enrolled in the program and were assigned a study identification number. Timing to enroll 75 participants (our initial target) took 50 days.

### Eligibility vs. ineligibility

A total of 200 ‘pregnant’ or ‘birth’ messages were sent to the study contact number by potential participants during the recruitment period. Figure 3 outlines the perinatal timing and reasons for ineligibility. One hundred and forty participants initiated contact antenatally and 60 initiated contact in the postpartum period. For the antenatal participants, 30 were not eligible, seven were not interested, and 45 were excluded for not being based in Nova Scotia. For the postpartum period, 20 were not eligible and 2 were not interested.

We excluded 45 contacts who were not based in Nova Scotia and were using a United States (US) number. We initially thought this could be individuals who are temporarily residing in Canada as they provided valid Nova Scotia postal codes in the demographic questionnaire. However, upon further analysis, we believe they were not actual women wanting to participate because of a discrepancy in the standardized questionnaire responses with extremely high scores on these measures (well beyond the standard norm) and quick

completion time of their REDCap surveys (immediately after they enrolled and on their infant's birth date), suggesting they were not actual participants. When analyzing location through Twilio, the United States had a predominant send/receive rate, providing further evidence that these respondents were not in Canada. Therefore, with the triangulation of these findings, it was deemed that these responses are not from actual potential participants and if they were, they were not residing in Nova Scotia as required by the study protocol, and thus were excluded.

### Dropout and survey completion rates

Of the 96 enrolled participants, four texted ‘STOP’, which resulted in a withdrawal from the program after receiving 0, 5, 6 and 9 messages, respectively (mean = 4, SD = 3.7). Three of the participants who withdrew enrolled in the postpartum period and one enrolled antenatally. As none of the participants who withdrew completed the baseline survey, we were unable to determine if these participants were different from those who completed the program. Furthermore, as participants were not able to be contacted after texting ‘STOP’, we were unable to ascertain reasons for withdrawal. Four additional participants did not complete any aspect of the baseline survey, thus were excluded from the analysis and were considered withdrawn from the study.

Therefore, the study had a total of 88 participants who did not opt out and who completed at least some of the baseline survey. Ninety percent (90.1%) of participants completed the full baseline survey, on average 5 days from enrollment (median = 3 days, SD = 5.3 days, range 0–19 days). Nine percent ( $n = 8$ ) did not complete the baseline survey in full – on average, participants completed 56.25% of the survey (range: 25–75%).

### Timing of recruitment

Of the 88 participants who were enrolled, 42 (47.7%) received full messages. Of these, 36 were antenatally recruited and six were recruited postnatally. Late enrollment during the antenatal period resulted in missing on average 6.4 messages (SD = 6.2) whereas late enrollment during the postpartum period resulted in missing on average 13.8 messages (SD = 10.6).

### Recruitment sources

Among the 80 participants who completed the full survey, 30.5% ( $n = 25$ ) heard about the study through friends or family and 18.3% ( $n = 15$ ) heard about it on the news. Recruitment via Facebook was also successful, with a quarter of participants reached through the social media platform – 14.6% via Facebook groups, 13.4% via Facebook advertisements, and 1.2% via Facebook Marketplace. No participant reported hearing about it through Instagram or Twitter. Posters in the hospital were the source of recruitment for 14.6% of participants, with 7.6% saying other (including doula, social media broadly, hospital website, and no response).

For paid Facebook advertisements, a total of \$215.77 CAD was spent, which equals a cost of \$19.62 per enrolled participants who indicated this a primary recruitment method. However, this may not be accurate as this does not consider whether any friends or family heard about the study through paid advertisements.

### Discussion

This study describes the remote recruitment of *Essential Coaching for Every Mother* as a pilot pre-post intervention study to inform a randomized controlled trial. The online and remote recruitment of pregnant and postpartum women for a pre-post intervention study for *Essential Coaching for Every Mother* was a success as we were able to recruit over our target of 75 participants within 50 days, with recruitment suspended within 67 days because of significant interest. This suggests that women were interested in receiving information during the postpartum period, which may have been enhanced because of the pandemic.

In comparison to other studies reporting on mHealth recruitment strategies in the perinatal population, recruitment in Australia for the ‘Growing Healthy’ program found that not only was online recruitment less expensive per participant, half of participants were recruited online in only 22 weeks compared with 30% in 46 weeks for practitioner-led recruitment and 7% for face-to-face recruitment in 18 weeks.<sup>28</sup> Another study that pivoted recruitment during the COVID-19 pandemic, ‘Health Check-Up for Expectant Moms’, an mHealth intervention targeting alcohol and drug use during pregnancy, found that remote recruitment resulted in greater enrollment (83% vs. 61%) in a shorter period of time (7 vs. 12 months) compared with inperson recruitment.<sup>29</sup> For Text4Baby, a perinatal text message program in the United States, a mixture of print, electronic advertisements and social media resulted in modest enrollment (1–4%) when considered in a real-world setting.<sup>30</sup> In a systematic review on online recruitment of mHealth studies broadly, 67% of studies were fully recruited within 5 months.<sup>31</sup> Although existing literature suggest that online and remote sources of recruitment may be effective at recruiting for perinatal research, more work needs to be done on identifying the most effective approaches, which may be differently based on demographic factors (e.g. urban/rural, socioeconomic status, race).

In our study, we found that women who were recruited antenatally received more of the study messages than participants who were recruited postnatally, with the latter missing on average 7.4 messages more. As participants who initiated contact during the antenatal period were sent reminder messages starting at 39 weeks, they were more likely to enroll earlier than women who had already given birth. No women who expressed interest during the antenatal period and were deemed eligible failed to enroll. Thus, antenatal recruitment may be a more efficient way to target recruitment for the larger randomized controlled trial to ensure women receive as much of the program as possible.

Looking at the recruitment methods, the most successful approach was promotion through Facebook. Both advertisement through mother-focused Facebook groups and paid advertisements were similarly effective. This finding is supported by previous systematic reviews, which found that Facebook recruitment was an effective way to reach participants for health research.<sup>32,33</sup> Within our study, we also found that sharing the study in the media and news reached 17% of participants and posters in the hospital reached 13.6% of participants, which suggests that using a

multi-pronged approach to recruitment is more efficient than solely using social media.

Emerging evidence shows that the pandemic has resulted in 37–54% of women experiencing perinatal depression and 57–72% experiencing symptoms of perinatal anxiety,<sup>10,11</sup> suggesting that a preventative mHealth program for women could have a positive effect on postpartum adjustment and experience. Given the growing evidence of the mental health consequences of physical distancing recommendations,<sup>34</sup> particularly during an intensely vulnerable period as is the postpartum period, having evidence-based information provided via text message may help cover this gap. Digital health during COVID-19 has the potential to bridge the healthcare service gap while maintaining physical distancing recommendations.<sup>35,36</sup>

### Limitations

Despite the successes, there were some challenges in recruitment. First, most participants heard about the study through family and friends but it is unclear how these family and friends heard about it. Additionally, we were unable to ascertain how women who contacted us but did not enroll in the study heard about it and whether there were any demographic differences between these groups. These factors limit the interpretation of recruitment source analysis. A second challenge was the high potential for people to misuse the self-identification of eligibility screening, which occurred exclusively via text message. This occurred in relation to the large number of United States-based numbers. We hypothesize that someone(s) had been completing the eligibility screening and baseline questionnaire to gain access to the honorarium. Although TextIt cannot limit to provincial locations, we continued to monitor recruitment closely to ensure we identified any issues related to this through regular monitoring of area codes. This may have potentially excluded individuals who were residing in Nova Scotia but had United States numbers; however, this was required to ensure safety and adherence to study protocol inclusion criteria. In terms of the sample being primarily white and middle-upper income, this was recognized as a limitation and is consistent with online recruitment.<sup>32</sup> Further work should have a more direct focus on collecting a diverse sample.

### Conclusion

Despite these challenges, this study found that *Essential Coaching for Every Mother* was able to successfully use remote recruitment of pregnant and postpartum women for a pre-post intervention study using a variety of

recruitment sources. Findings from this study will be applied in the randomized controlled trial.<sup>20</sup>

### Recommendations for research

Whenever recruiting or conducting research online, it is important to have multiple verification checks to ensure that participants are actual participants, not bots (i.e. autonomous program) or fraudulent actors, especially when advertising through social media. This is not a new phenomenon and has been discussed in the literature broadly.<sup>37,38</sup> Recommendations to minimize poor quality data include using automatic techniques embedded in the survey itself, such as using CAPTCHA or hidden questions, as well as manual monitoring,<sup>39,40</sup> as utilized in this study. Despite challenges, it is effective and efficient to recruit for research online, particularly when facing challenges with reaching your target audience imperson.<sup>32,33,41</sup> It is important to use a variety of measures to ensure that the sample is representative of your target population, as social media can tend to recruit more white, middle-class participants.<sup>42</sup>

### Recommendations for practice

First time mothers appear to be interested in receiving support via text message, thus consideration of using a variety of approaches to reaching women in the postpartum period is recommended. Text messaging can be a feasible way to reach hard-to-reach populations and is cost-effective.<sup>43–45</sup>

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Declarations: ethics approval and consent to participate: Ethical approval was provided by IWK Health. All participants provided electronic consent to participate.

Consent for publication: participants consented to having their de-identified data used in publication.

Availability of data and materials: available from corresponding author upon reasonable request.

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Authors' contributions: J.D. conceptualized the manuscript, conducted the data collection, wrote the manuscript, and edited all revisions. M.C.Y., G.T.M., M.A., and D.M. intellectually contributed to the development and writing of the manuscript, added text, and edited all revisions.

### Conflicts of interest

There are no conflicts of interest.



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