

Development of a Doula Intervention for Postpartum Depressive Symptoms: Participants' Recommendations

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Search terms:

Doula, educational materials, focus groups, postpartum depression, smartphone application (app)

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doi: 10.1111/jcap.12019

PROBLEM: About 10–15% of women experience postpartum depression (PPD). Doulas provide support and education about PPD.

METHODS: This qualitative study used focus groups with mothers, doulas, and doula trainers to develop educational materials for doulas to help mothers identify symptoms of depression and seek treatment.

FINDINGS: All participants preferred materials that use simple language and avoid psychiatric jargon. Three themes emerged: someone to talk to, flexibility, and interactivity. Materials developed include tri-fold brochure and content for an application for smartphones and digital tablets.

CONCLUSIONS: Doulas can use these interactive materials to provide supportive, relationship-based care that complements nursing care.

Postpartum depression (PPD) is a major health issue for many women and, if left untreated, can result in serious health consequences for the mother and the infant. It is estimated that 10–15% of women experience depression during pregnancy and/or postpartum (Hoffman & Hatch, 2000; O'Hara, 1997). Two meta-analyses and individual studies have identified the following major risk factors for PPD: previous history of depression (including antenatal depression), prenatal anxiety, lack of social support, life stress or negative life events, low socioeconomic status, and childcare stress or the presence of other young children in the home (Beck, 2001; Howell, Mora, Horowitz, & Leventhal, 2005; Logsdon, Birkimer, & Usui, 2000; O'Hara & Swain, 1996; Yonkers et al., 2001).

Many women do not seek treatment for depression for a variety of reasons, including their inability or reluctance to recognize signs of depression, fear of being labeled “crazy,” and stigma associated with mental illness. If women are low income, additional reasons include limited or no health insurance, lack of access to quality services in their community, and inadequate financial and social resources (Carasquillo, Himmelstein, Woolhandler, & Bor, 1999). If women are African American, reasons for not seeking treatment are further confounded by cultural mistrust (Department of Health and Human Services [DHHS], 2001; Nickerson, Helms, & Terrell, 1994), perceived provider bias in the diag-

nosis and treatment of mental disorders (DHHS, 2001; Whaley, 2001; Worthington, 1992), and the greater likelihood of seeking mental health services from religious sources (Brown, 2004) and informal community support than from professional providers (Primm, Cabot, Pettis, Vu, & Cooper, 2002). Given the high prevalence of depressive symptoms, especially among low-income women, and the consequences of nontreatment, it is important to develop and test a non-threatening supportive intervention that will assist women to recognize depressive symptoms and seek treatment when needed.

One supportive intervention is the use of a doula, a trained woman who provides support during labor, birth, and/or postpartum. *Birth* doulas typically meet with the mother and/or her partner during the third trimester of pregnancy to develop a birth plan. These doulas provide *continuous* emotional support, comfort measures, information, and advocacy during labor and birth, but they do not provide medical or nursing care (DONA International, 2012).

Several meta-analyses have found that continuous support during labor and birth by doulas and other support people improves both infant (i.e., less likely to have low 5 min Apgar) and maternal outcomes (i.e., more likely to have spontaneous vaginal birth versus Caesarean or instrumental birth, less analgesia use, slightly shorter labors). It has also been found to improve maternal satisfaction with the labor experience

(Hodnett, Gates, Hofmeyr, Sakala, & Weston, 2011; Scott, Berkowitz, & Klaus, 1999) and attachment (Sosa, Kennell, Klaus, Robertson, & Urrutia, 1980). In addition, there is some evidence that doula care decreases depression at 6 ($d = 1.01$; $n = 189$) (Wolman, Chalmers, Hofmeyr, & Nikodem, 1993) and 12 weeks postpartum ($d = 0.39$; $n = 63$) (Trotter, Wolman, Hofmyer, Nikodem, & Turton, 1992).

Some doulas are certified to provide care during only the antenatal period and birth (birth doulas), others are certified to provide services during only the postpartum period (postpartum doulas), and some are certified to provide services during both birth and the postpartum period. Doulas certified to provide care during only the postpartum period typically meet the family following birth. Doulas certified to do both provide the birth doula services described above and make postpartum home visits. All *postpartum doulas* make home visits during the postpartum period to assist the family to integrate the newborn into the family and to support the mother during the transition from pregnancy to motherhood. The first and only known study to focus exclusively on postpartum doula care used ethnographic methods to document that care. The investigators found that in the postpartum period, doulas provide supportive care in 11 domains: emotional support, maternal physical comfort, self-care, infant care, information, advocacy, referral, partner/father support, support mother/father with infant, support mother/father with sibling care, and household organization (McComish & Visger, 2009). Emotional support was used most frequently, and often was used in combination with the other domains. In that study, postpartum doulas used those domains to facilitate development of maternal responsiveness and competence by assisting the mothers with three issues: resolution of infant feeding, integrating the infant into the family, and supporting developmental care and attachment (McComish & Visger).

While doula care is still not widely used in the United States, it is growing. Furthermore, in 2007, the *Listening to Mothers II Report* found that women's satisfaction with care was higher for doulas than for any other providers during the labor and birth experience (Declercq, Sakala, Corry, & Applebaum, 2007).

Doulas of North America (now DONA International) trains and certifies both birth and postpartum doulas. While other organizations train and certify doulas, DONA is the largest. DONA has certified birth doulas for many years, but postpartum doula certification did not begin until 2002 (DONA International, 2008). As of June 2010, DONA reported that there were 2,723 active DONA-certified *birth* doulas worldwide (2,230 in United States, 308 in Canada, and 85 in other countries). In addition, there were 319 DONA-certified *postpartum* doulas worldwide (290 in United States, 26 in Canada, and 3 in other countries). Finally, there were 120 doulas that are DONA certified as *both* birth and post-

partum doulas (100 in United States, 17 in Canada, and 3 in other countries) (S. Toffolon, personal communication, June 14, 2010).

As noted above, 10–15% of women experience PPD. If women lack knowledge of PPD, many will not seek care, which has consequences for the infant. Evidence suggests that depressed women may be less responsive to their infants, resulting in poor infant and child outcomes (Arteche & Murray, 2011; Brennan et al., 2000; Murray & Cooper, 1997; Murray, Cooper, & Hipwell, 2003; Murray, Woolgar, & Cooper, 2004). A major risk factor for PPD is lack of social support (Beck, 2001; Logsdon et al., 2000; O'Hara & Swain, 1996), which may be mediated by a postpartum doula who provides both emotional support and education about PPD. Postpartum doulas may have an advantage in working with women experiencing depression since they are low cost and are not associated with the stigma of mental illness. With these advantages, and additional resources, doulas will be able to assist mothers to identify depressive symptoms and seek treatment early.

The study reported here is an extension of a previous study on postpartum doula care that has been reported elsewhere (Campbell-Voytal, McComish, Visger, Rowland, & Kelleher, 2011; McComish & Visger, 2009). In that study, doulas told us that they did not know enough about PPD, but made home visits to mothers who were depressed. They indicated that they wanted additional information and resources for helping mothers with depression. Thus, the purpose of this study was to develop an intervention protocol for enhanced doula care focused on helping women to identify signs of PPD and seek treatment. Specifically, this study aimed to identify content for educational materials for doulas to use with mothers following birth of their infants. This article will describe the process used to develop the content for the materials, present the materials that were drafted, and describe recommendations we received from the mothers, doulas, and trainers for refinement of the materials.

Method

Sample

The convenience sample of 20 mothers who participated in the focus groups was recruited through flyers in mailboxes at two university day care centers and posted at Women, Infants and Children (WIC) Program offices in three counties in the Detroit metropolitan area. Inclusion criteria consisted of: being 18 years or older, having at least one living child ≤ 5 years old, and being able to speak English. Twelve of the mothers were African American, six were White, and one each was Hispanic and American Indian. The mothers' average age was 31.3 years (range = 18–45; $SD = 7.61$). Most of the women ($n = 11$) were married/partnered, half ($n = 10$) had completed

some trade school or college, and eight had an undergraduate or graduate degree. For half of the mothers ($n = 10$), the family income was $< \$25,000$, and for 5, it was $> \$55,000$. The mothers had an average of 2.42 living children (range = 1–9; $SD = 2.09$), with the average age of the youngest child being 2.36 years (range = 3 weeks to 5 years; $SD = 1.51$). Twelve of the mothers reported having experienced depression for more than 2 weeks, and four infant or child deaths had been experienced by these women. Although having experienced depression was not an inclusion criterion, it appears that several of the maternal participants chose to enter the study because they had experienced depression. Even though the focus group sessions were held about a year apart, 17 of the 20 women were able to be contacted, and 14 of those women participated in the second session.

The five doulas who participated in the study were recruited via personal contact by the principal investigator, who had known many of the doulas in the Detroit metropolitan area from her previous doula study. In order to participate, the doula had to have completed a birth or postpartum doula training program approved by DONA, and currently be working as a doula in the Detroit metropolitan area. The doulas' average age was 34.4 years (range = 29–39; $SD = 4.62$). Three of the doulas were White, and one each was African American or biracial. Four doulas had completed trade school or some college, and one had a bachelor's degree. Family income for the doulas ranged from $< \$40,000$ to $\geq \$70,000$. On average, they had 6.38 years of doula experience (range = 1–11; $SD = 4.89$). Two doulas had experienced depression for more than 2 weeks, and none had personally experienced an infant or child death. Three doulas participated in both focus group sessions.

The five postpartum doula trainers who participated in this study were recruited by the Board of Directors of DONA International, the largest organization that certifies doulas in the United States. These trainers were from Iowa, Michigan, New Jersey, Pennsylvania, and Wisconsin. On average, they had conducted over 30 doula trainings (range = 19–44; $SD = 10.47$). All were White, married, and most had a family income greater than $\$70,000$. All had some college education, with two having completed some graduate school. The trainers' average age was 42 years (range = 42–58; $SD = 6.34$). One trainer had experienced depression for more than 2 weeks, and four infant or child deaths were experienced by these women. Two of the trainers were able to attend the final focus group session, two others were unable to attend due to work/family schedules, and one had an unexpected family emergency on the day of the final session.

Procedure

In this qualitative study, our multidisciplinary team conducted focus groups with mothers ($n = 20$), doulas ($n = 5$),

and doula trainers ($n = 5$). Following human subjects approval by the university IRB, flyers were posted for the recruitment of prospective mothers. Women who were interested in participating contacted one of the investigators (JFM, CJG). If the woman met the inclusion criteria, the study was then explained in detail, questions encouraged, and if she agreed to participate, contact information was obtained. Once we had six to eight participants, a focus group was scheduled. Informed consent was obtained at the first focus group. Each participant was invited to participate in two focus groups, approximately 1 year apart.

The first round of focus group sessions was conducted in late summer/fall of 2010. These sessions focused on what content about PPD should be included in the educational materials to be developed. The second round of focus group sessions was held in fall 2011 to obtain feedback from the participants about the drafted materials. The goal in these final sessions was to determine if we had accurately reflected participants' ideas in the content, and to elicit suggestions for either content or format changes that would make the materials more effective and user friendly.

Each group (e.g., doula trainers, doulas, and mothers) met separately. Since the doula trainers were from across the United States, their first focus group session was held in person at the annual conference of DONA International in 2010, with the second session held synchronously via a video-conference set up by the College of Nursing Information Technology department. All sessions for the mothers and doulas were held face-to-face. The first and second focus group sessions for the doula trainers and the doulas were conducted with all present at the same focus group session, whereas five focus group sessions were held for mothers. Each focus group lasted about 2 hours, including time for a light lunch. All participants received a gift card to a national retail store following completion of each focus group session.

A semi-structured interview guide was used to provide consistency in questions across focus groups while still allowing flexibility for participant interaction (Stewart, Shamdasani, & Rook, 2007). Each group session was led by one of the investigators, with nursing graduate students asking predetermined questions from the interview guide during the sessions. At the beginning of each session, everyone present introduced themselves, and ground rules regarding "confidentiality" and "no right or wrong answers" were established. Following that, the group leader began with a broad description of the goal for the day and began the session by asking a broad question. For example, in the first session the goal was to determine what content about PPD would be most helpful to mothers. After that goal was stated, the leader asked the mothers to talk about experiences they had had with depression and what things (interventions) by others (e.g., nurses, doulas, her own mother, partner) had been helpful or unhelpful. As the mothers talked, probes were used to illicit more

content relevant to development of educational materials. All participants were encouraged to talk and those who were reticent were asked for their opinion.

Data Analysis

Audiotapes of the sessions were transcribed verbatim and subjected to content analysis. The analysis was conducted independently by the investigators (JFM, CJG, JAM) as well as graduate nursing students who were assisting with data collection and analysis. Each person reviewed the transcripts and identified themes that emerged. Then, collectively, the team verified the themes and came to consensus about whether a theme should be included in the materials. In case of disagreement, the analysis was repeated and discussed until consensus was obtained. The method adopted was inductive which enabled us to identify the most important aspects of the transcripts. Trustworthiness of the findings was enhanced through analysis by investigators with different perspectives, and through member checks and prolonged engagement with the study participants (Morse, Swanson, & Kuzel, 2001; Patton, 2001).

Results

Themes and Use of Themes in Materials

Responses of mothers, doulas, and trainers were consistent. All preferred materials that use simple language, talk about "adjusting to motherhood" rather than PPD, and can be used flexibly in a variety of contexts. Three themes emerged: someone to talk to, flexibility, and interactivity.

Someone to Talk To

Having "someone to talk to" was the predominant theme throughout our discussions with mothers. This theme was confirmed by the trainers and doulas through their emphasis on the importance of establishing trusting relationships with mothers. One trainer said, "It's all about helping the mother feel confident in her parenting of her baby. She has to know that she is the expert on her baby."

All participants thought that having someone to talk to was the most important thing for helping mothers deal with the wide array of feelings that emerge following birth of a new infant. In their discussions with us, mothers emphasized the need for the materials to be designed in such a way that they would enable mothers to access family, friends, or community or professional resources easily and in a way that ensured confidentiality.

All mothers stated that they would be wary of being labeled as depressed, and were emphatic about the notion of not using the term "postpartum depression" or professional

jargon in the content of the materials. They told us to keep the language simple. Doulas and trainers concurred, and suggested that we frame the materials in the context of "adjusting to motherhood."

Several women expressed a fear that if they acknowledged feeling depressed others would perceive them as being "crazy," which also engendered fear of losing custody of their infants. One young mother stated, "I didn't think mental illness was real until I experienced depression after the birth of my baby." As we discussed the design and content of the materials, one woman stated that she would have concerns about calling a community resource (e.g., community mental health center) because she would be afraid they would not keep her information confidential, and others agreed. For us, this was a revelation. As professionals, we know that information is kept confidential. However, this reaction from the mothers underscored the need for us, as psychiatric-mental health (PMH) nurses, to talk with the people we want to reach, and to use their perspective to guide the content and format of the materials we develop.

Flexibility

There was consensus among the participants that the materials need to be usable in a variety of settings, with families from different ethnic groups and constellations. While all of our mothers and most doulas were from an urban setting, they represented different ethnic groups and cultural traditions, as well as different educational and economic levels. Some of the doulas were from a rural county near Detroit, and some doula trainers were from rural states where the lifestyles of mothers were different, and available mental health resources were limited. The participants wanted materials that could be used in all of these settings and with all ethnic groups. Again, the use of clear simple language that avoided psychiatric jargon was emphasized, along with the need for the materials to be designed in such a way that mothers could use the materials to access resources quickly and easily at any time day or night (e.g., while awake at 3:00 a.m. feeding the baby).

Interactivity

Consistent with the need for someone to talk to and the need for flexibility was the need for the materials to be interactive in nature. Most mothers, doulas, and trainers told us they would like to see the materials developed to have digital applications for smartphones or digital tablets (e.g., iPhone or iPad). While a few of the older mothers told us they would prefer print materials (e.g., brochure or booklet), the younger mothers clearly preferred accessing information on smartphones rather than in hard copy. Several younger mothers stated, "I don't read. I get my information from the internet." The doulas and doula trainers concurred with this sentiment,

stating that most of the mothers with whom they work also rely on smartphones or Internet access to obtain health-related information. Based on this strong emphasis on digital applications, we decided to develop content for two types of educational/resource materials: a tri-fold brochure, and an application (app) for smartphones and digital tablets.

Materials Developed

The content that was developed for the tri-fold brochure and the digital applications reflects the perceptions of mothers, doulas, and trainers about what would be useful, and was designed to be flexible, to be used with a variety of families from different backgrounds, and in a variety of settings.

The stories of our focus group members, especially the mothers, were the foundation for the verbal content and visual design of our materials. Conversational storytelling—the give-and-take of talking, listening, and responding to feelings, thoughts, and experiences—is at the heart of the doula/mother relationship. It is also at the heart of the design of the brochure and digital app. The layout of the materials is designed to help each mother create her own story about her feelings, the meaning of those feelings, and things she can do to minimize acceleration of the feelings into a major depressive episode. In addition, the materials are designed to help her understand that if she experiences these feelings with great intensity, she can get help. The doula's interaction with the mother is intended to help the mother identify resources early, and be prepared to access them if needed.

The basic content and layout of the print and digital materials is identical. Figures 1–4 illustrate the basic content and layout. Figure 5 illustrates the flexibility and interactive nature of the use of the content as applied to a smartphone. Figures 6–9 provide information about participants' responses to the draft materials and their recommendations for improving them.

As Figure 1 shows, when folded, the cover page of the tri-fold brochure labeled “How do I feel?” provides a list of feelings frequently experienced shortly after giving birth, all of which could be signs of depression. In addition, the manner in which the feelings are displayed gives animation to the words. Furthermore, as you look down the page, the severity of the symptoms increases, as does the intensity of the animation depicted in the graphic display.

When the tri-fold is first opened, two panels are displayed (see Figure 2). The first panel labeled “What does it mean to feel this way?” provides brief information about the feeling and what it may mean in terms of depression and the seriousness of the symptom. The second panel provides a list of community resources.

When the tri-fold is opened completely, three panels are displayed (see Figure 3). Across from the panel labeled “What does it mean to feel this way?” are panels labeled “Who can I

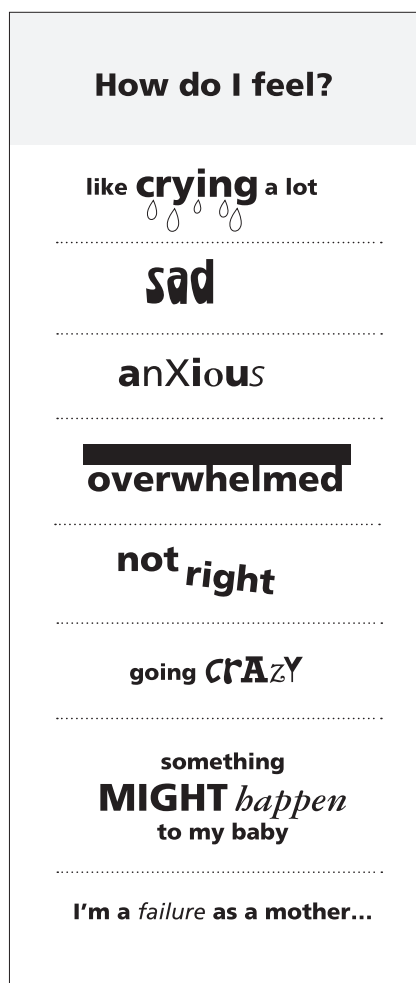


Figure 1. Cover Panel on Tri-Fold Brochure

talk to about my feelings?” and “What and who can help me get through?” These panels have space for the mother and doula to insert names of people and community resources that she can access if she experiences any of the feelings listed on the cover panel. Many of the mothers in this study stated they had experienced PPD, and some had been on antidepressants. They stated that when they were depressed they felt unable to mobilize enough energy to seek help. With the list of resources identified before birth, it is believed that mothers will be able to access resources more easily and receive help from family, friends, or professionals earlier.

The final panel (see Figure 4) labeled “What do I need to remember?” lists some tips for mothers to use to improve their nutrition, maintain a healthy lifestyle, and decrease stress while recuperating from giving birth and integrating the new baby into the family unit. The final list on this panel contains ideas for seeking additional information about feelings after birth, skills of newborns, and infant cues.

What does it mean to feel this way?	Who can I talk to about my feelings?																												
<p>like crying a lot</p> <ul style="list-style-type: none"> • It's normal after having a baby. • If you feel this way more for 2 weeks, it could be serious. <p>sad</p> <ul style="list-style-type: none"> • It's normal after having a baby. • If you feel this way more for 2 weeks, it could be serious. <p>anxious</p> <ul style="list-style-type: none"> • It's common – maybe you're not sure about what you need to do. • If you are worried a lot, it could be serious. <p>overwhelmed</p> <ul style="list-style-type: none"> • It's common – a baby takes up so much time. • If you feel like you just can't cope, it could be serious. <p>not right</p> <ul style="list-style-type: none"> • If you don't feel like your usual self and things aren't getting better after a few weeks, it could be serious. <p>going crazy</p> <ul style="list-style-type: none"> • If your thoughts aren't making sense, you can't make decisions, or feel that you're losing control, it could be serious. <p>something might happen to my baby</p> <ul style="list-style-type: none"> • If you feel that you might hurt your baby or are worried about the baby, this is serious. <p>I'm a failure as a mother</p> <ul style="list-style-type: none"> • If you consistently feel like you aren't doing the right thing for your baby, and the feeling lasts for several weeks, this could be serious. 	<table border="1"> <thead> <tr> <th data-bbox="596 348 821 373">List of resources</th> <th data-bbox="821 348 1005 373">Phone</th> </tr> </thead> <tbody> <tr> <td data-bbox="596 386 821 432">Oakland Country xxxx <i>mothers' support group</i></td> <td data-bbox="821 386 1005 411">248-000-0000</td> </tr> <tr> <td data-bbox="596 445 821 491">Wayne County xxxxxxx <i>mothers' support group</i></td> <td data-bbox="821 445 1005 470">313-000-0000</td> </tr> <tr> <td data-bbox="596 504 821 550">Oakland Country xxxx <i>counseling services</i></td> <td data-bbox="821 504 1005 529">248-000-0000</td> </tr> <tr> <td data-bbox="596 562 821 609">Wayne County xxxxxxx <i>counseling services</i></td> <td data-bbox="821 562 1005 588">313-000-0000</td> </tr> <tr> <td data-bbox="596 621 821 667">Oakland Country xxxx <i>call-in center</i></td> <td data-bbox="821 621 1005 646">248-000-0000</td> </tr> <tr> <td data-bbox="596 680 821 726">Wayne County xxxxxxx <i>call-in center</i></td> <td data-bbox="821 680 1005 705">313-000-0000</td> </tr> <tr> <td data-bbox="596 739 821 785">Oakland Country xxxx <i>mothers' support group</i></td> <td data-bbox="821 739 1005 764">248-000-0000</td> </tr> <tr> <td data-bbox="596 798 821 844">Wayne County xxxxxxx <i>mothers' support group</i></td> <td data-bbox="821 798 1005 823">313-000-0000</td> </tr> <tr> <td data-bbox="596 856 821 903">Oakland Country xxxx <i>counseling services</i></td> <td data-bbox="821 856 1005 882">248-000-0000</td> </tr> <tr> <td data-bbox="596 915 821 961">Wayne County xxxxxxx <i>counseling services</i></td> <td data-bbox="821 915 1005 940">313-000-0000</td> </tr> <tr> <td data-bbox="596 974 821 1020">Oakland Country xxxx <i>drop-in center</i></td> <td data-bbox="821 974 1005 999">248-000-0000</td> </tr> <tr> <td data-bbox="596 1033 821 1079">Wayne County xxxxxxx <i>drop-in center</i></td> <td data-bbox="821 1033 1005 1058">313-000-0000</td> </tr> <tr> <td data-bbox="596 1092 821 1138">Oakland Country xxxx <i>help line</i></td> <td data-bbox="821 1092 1005 1117">248-000-0000</td> </tr> </tbody> </table>	List of resources	Phone	Oakland Country xxxx <i>mothers' support group</i>	248-000-0000	Wayne County xxxxxxx <i>mothers' support group</i>	313-000-0000	Oakland Country xxxx <i>counseling services</i>	248-000-0000	Wayne County xxxxxxx <i>counseling services</i>	313-000-0000	Oakland Country xxxx <i>call-in center</i>	248-000-0000	Wayne County xxxxxxx <i>call-in center</i>	313-000-0000	Oakland Country xxxx <i>mothers' support group</i>	248-000-0000	Wayne County xxxxxxx <i>mothers' support group</i>	313-000-0000	Oakland Country xxxx <i>counseling services</i>	248-000-0000	Wayne County xxxxxxx <i>counseling services</i>	313-000-0000	Oakland Country xxxx <i>drop-in center</i>	248-000-0000	Wayne County xxxxxxx <i>drop-in center</i>	313-000-0000	Oakland Country xxxx <i>help line</i>	248-000-0000
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Figure 2. Panels on Inside of Tri-Fold Brochure When First Opened

Figure 5 illustrates the flexibility and interactivity that are available through the use of the app on a smartphone. When a mother experiences a particular feeling, for example, “like crying a lot,” using her smartphone, she can click on the feeling and it will take her to a screen that shows her the applicable portion of the “What does it mean?” screen, and gives her access to either of two personalized lists: “Who can I talk to?” or “What can help me get through?” Thus, with three clicks, she can access a helpful person and find “someone to talk to.”

Materials With Feedback From Mothers, Doulas, and Trainers

The final phase of this study was the second round of focus groups with the mothers, doulas, and trainers. At these sessions, we asked the participants to evaluate the draft materials and give us suggestions for improving them—in terms of content, ease of use, relevance to their lives (mothers), and

practice (doulas and trainers). Figures 6–9 illustrate the comments we received.

Figure 6 shows the cover panel: “How do I feel?” When we showed this panel to mothers, they suggested changing the wording to “Am I feeling . . .?” Doula trainers told us they would like to see more positive feelings on this list. When mothers did not suggest adding more positive feelings, we told them what the trainers had suggested and asked if they thought positive feelings should be added. One mother stated, “We all know about feeling happy after a baby is born. What we need to know about are the negative feelings and what to do about them.” Other mothers and the doulas agreed.

All of the other comments in Figure 6 are from mothers. As the figure shows, the comments were related to simplifying the language and staying away from psychiatric jargon.

Figure 7 shows two panels: “What does it mean to feel this way?” and the community resource panel for “Who can I talk

What does it mean to feel this way?	Who can I talk to about my feelings?	What + who can help me get through?																				
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Figure 3. Panels on Inside of Tri-Fold Brochure When Fully Opened

to about my feelings?” Most comments by participants were about the “What does it mean . . .” panel. They asked us to clarify what the phrase “It could be serious” means, and, instead, suggested that we talk about what should be done. Specific wording suggested was: “Talk with someone about this.” They also suggested that we switch the order of the feelings related to depression on the cover panel and on panel 2, so that the order in which the symptoms are listed is truly from least to most severe. Finally, participants recommended limiting the examples on the community resources panel to only services specifically aimed at PPD. Although it is not included in the figure, they also suggested including some Web sites about PPD resources on this panel.

Three panels are in Figure 8: the “What does it mean . . .?” panel; the personal resources panel with the list of family, friends, and professionals who are identified as being important to the mother; and the “What and who can help me get through?” panel. For the “What and who

can help me get through?” panel, one doula pointed out that before adding someone to this list, it is important for the mother to determine if the person is willing or able to provide the type of support indicated following birth. It is important to help the mother use her resources wisely and not overburden family and friends. Finally, all participants identified the need for more space on this panel to personalize the list to fit the mother’s own circumstances.

Figure 9 displays participants’ comments related to the “What do I need to remember?” panel. A recommendation was made to change the wording in the header of this panel. Mothers told us that new mothers already have too much to remember; seeing a panel with that language could be overwhelming. Finally, the doulas and trainers suggested adding depression and anxiety to the list of topics for additional information. They thought that by the time a new mother got to this last panel, she would no longer see these two



Figure 4. Panel on Back of Tri-Fold Brochure

words as stigmatizing and/or related to psychiatric jargon. Mothers agreed with this assessment.

Discussion

In the study reported here, we conducted focus groups with mothers, doulas, and doula trainers. The purpose was to develop educational materials for doulas to use with mothers. Originally, we intended to create traditional educational materials such as booklets or flip charts. Instead, most of the mothers, doulas, and trainers told us that in today's information age, digital applications for smartphones or tablets would be more helpful. Therefore, the product that emerged from this study is content for both a tri-fold brochure and for a smartphone or digital tablet app.

A clear advantage of the use of smartphone or digital tablet technology is the ability of the doula to customize the resource information with the mother. During prenatal visits

with the mother, the doula can talk with her about feelings she might have following birth of her baby. At that time, the doula and the mother can, together, identify common feelings following birth and can populate the mother's smartphone/tablet screens with names/numbers of family, friends, and local resources. The screens of the app are designed so that the mother can move from the screen that identifies feelings, to the meaning of a feeling in terms of severity of symptoms, to placing a telephone call to a family member, friend, or professional resource in just three clicks of the keyboard. These features of the smartphone and digital tablet app incorporate the themes that emerged from the focus groups (someone to talk to, flexibility, and interactivity) into the educational materials developed in this study.

While these materials can be used by any mental health or primary care professional, doulas were selected for this study because they often develop a long-term relationship with the mother and the family that continues from the prenatal period, through birth, to postpartum, and integration of the infant into the family. The bond that is developed through the doula's support during the intensity of the birth experience can provide the link that enables a mother with depression to trust enough to share her feelings and follow the doula's advice by seeking professional mental health treatment if needed.

Strengths and Limitations

The qualitative study design was both a limitation and strength. Results of a qualitative study cannot be generalized beyond the sample from which they were obtained. However, this disadvantage is balanced by the depth of information that can be obtained. In addition, the sample for this study included experienced doula trainers from across the United States, adding breadth to the information obtained. Finally, a major strength of our study was the interdisciplinary nature of the research team. Our current team includes two psychiatric nurses (one who specializes in infant mental health and the other in women's mental health) and a graphic designer who specializes in health literacy. The different disciplinary perspectives provided by this team, in combination with validation of results by three groups of participants, allowed for triangulation and confirmation of the results.

Future Directions

This research team is currently working collaboratively with faculty from the computer science department at the university to write a grant to obtain funding to actualize the digital application developed in this study. It is expected that continuation and expansion of the disciplinary diversity in our collaboration will enable us to create digital applications with increased user-friendliness, effectiveness, and visual appeal.

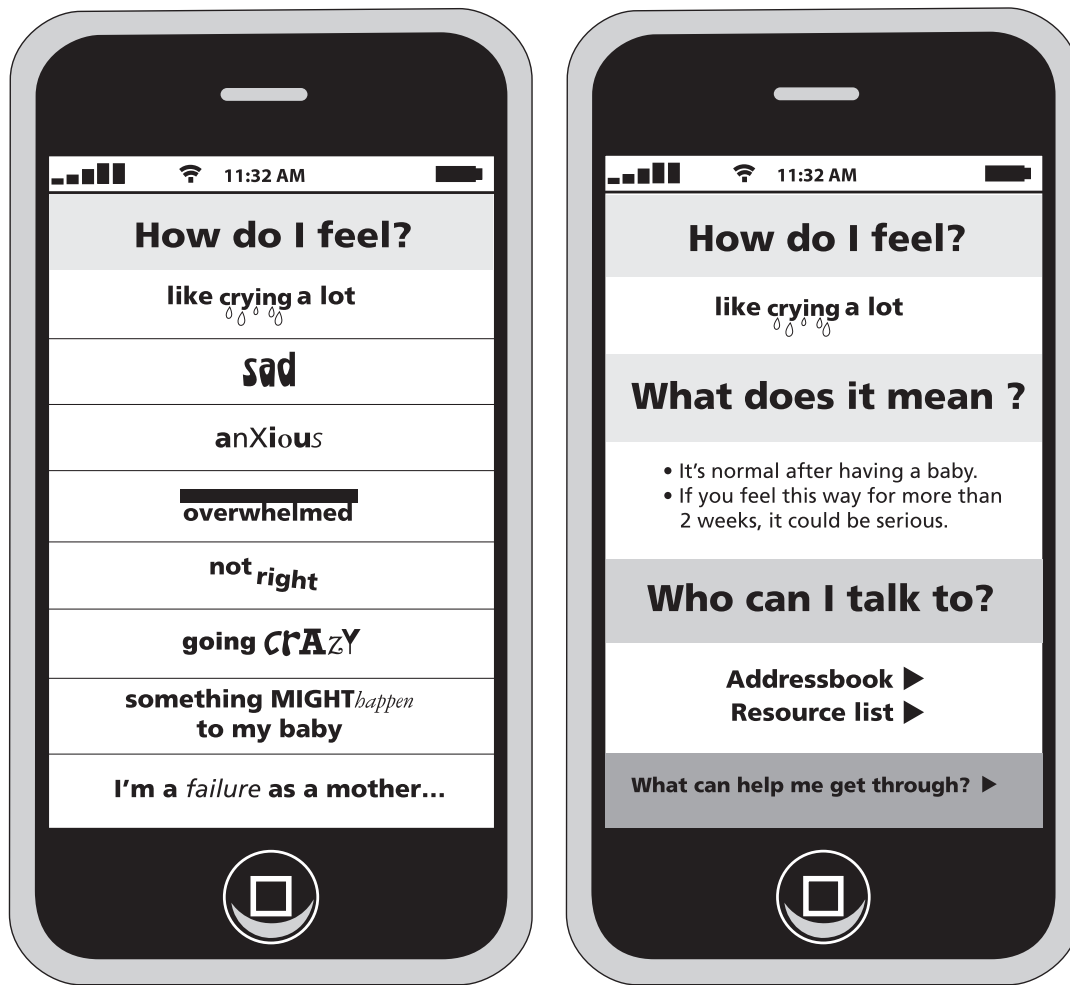


Figure 5. First Two Screens on Cell Phone App

Conclusion

Perceptions of mothers, doulas, and trainers guided the development of the educational materials reported here. Had we not listened to the mothers we would not have had the insight to develop content for a digital application. Collaborative decision making is imperative for provision of quality preventative care in PMH nursing. It is expected that when this content is applied in a smartphone app, and used in relationships with new mothers by doulas or other providers, mothers will be able to more easily find “someone to talk to.”

Since the earliest publication of Peplau (1952), relationships have been at the heart of PMH nursing. This has not changed. Relationships are still important, and may be even more important, since technology may isolate rather than connect people. Although digital apps are relatively new in supportive postpartum care, their use in this study is

relationship based. These educational materials provide information about symptoms and resources for PPD to be used interactively with mothers by doulas and other healthcare providers. By doing so, doulas complement and extend the care provided by PMH nurses and other providers.

Acknowledgments

Funding for this project was provided by The Hertha Gast Research Award from the ISPN Foundation and by a small grant from the Lambda Chapter of Sigma Theta Tau International.

The authors wish to thank the mothers, doulas, and doula trainers who participated in this study. We would like to particularly acknowledge the doula trainers for their long-term involvement in development and completion of this project.

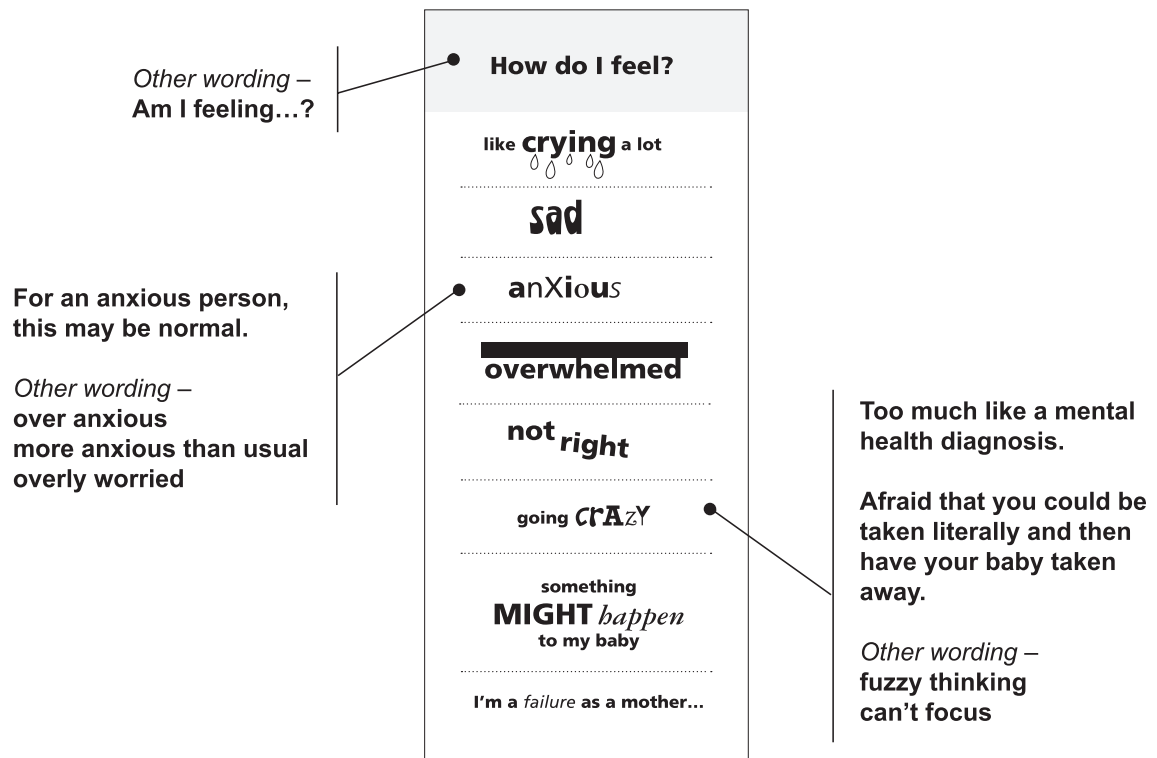


Figure 6. Participants' Feedback on Cover Panel of Tri-Fold Brochure

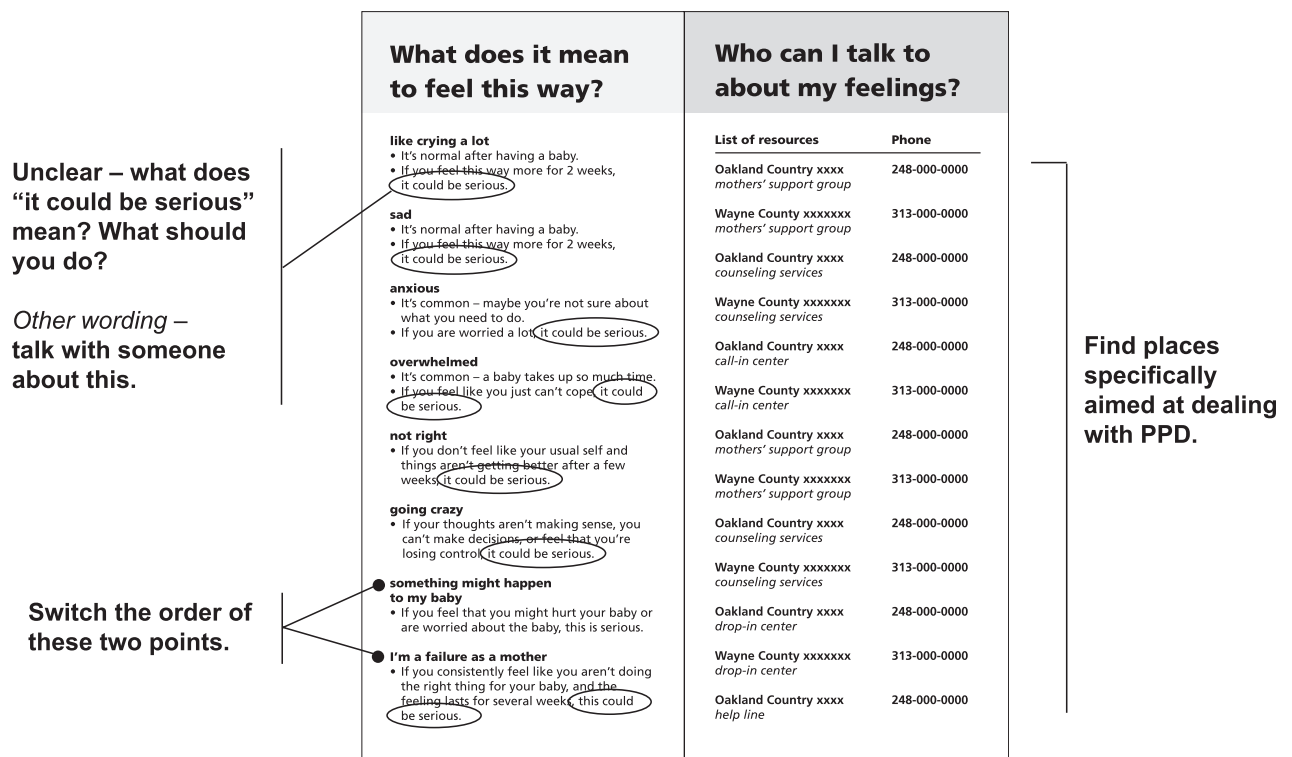


Figure 7. Participants' Feedback on Two Panels of Tri-Fold Brochure

What does it mean to feel this way?	Who can I talk to about my feelings?	What + who can help me get through?																				
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Find out who can help before you fill this out.

Need more space to put in my own needs.

Put 1st on the list.

Figure 8. Participants' Feedback on Three Inside Panels of Tri-Fold Brochure

What do I need to remember?

To take care of myself.

- Drink lots of water
- Eat healthy snacks.
- Get as much sleep as I can.
- Spend time with my family and friends.
- Spend "adult" time with my partner/spouse.

Don't worry about

- house cleaning.
- being the "perfect" mom.
- what anyone else thinks.

If things aren't going the way you expected, call someone to talk to about what's happening.

Learn more about

- feelings I might have now that my baby is born.
- what babies can do in their first few months.
- my baby's cues.

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Judith Fry-McComish, Carla Groh,
Judith Moldenhauer

Add – depression anxiety

Mothers say that they already have too much to remember.

Change wording.

Figure 9. Participants' Feedback on Back Panel of Tri-Fold Brochure

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