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Women's Priorities for Depression Care and Perceptions of a Peer Delivery Treatment Modality

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### Abstract

While depression is a common mental disorder in pregnant and postpartum women, impacting both the woman and her child, many women are not receiving the care they need. To better understand women's priorities for depression care and their perceptions of an innovative delivery method using peers, this study explored responses to an online survey among 118 women who had endorsed a history of depression and had given birth within the last three years. Overall, women prioritized taking care of their baby and returning to their normal selves as indicators of depression remission and perceived peer delivery of depression treatment positively. These findings offer an important perspective with regard to women's treatment preferences, and the potential success of future peer delivery depression treatment.

*Keywords:* pregnancy, postpartum, depression, peer, treatment, benefits, barriers, preferences, priorities

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### Women's Preferences and Priorities for a Peer Delivery Treatment Modality

Depression is prevalent among women during the perinatal period (i.e., during pregnancy and within the first twelve months after giving birth) (Gavin et al., 2005). Along with the impact depression can have on women are concerns about potential impacts on the fetus and infant; depression among mothers has been associated with premature birth, lower birth weight, emotional and cognitive developmental delays of the infant, and increased negative affect in the infant (Rouse & Goodman, 2014; Stein et al., 2014). Treating perinatal depression can help alleviate suffering among women during this crucial time in their lives and may decrease the physical and mental health risks in their child. Unfortunately, despite the prevalence and negative impact perinatal depression has on women and their children, few receive treatment (Carrington, 2006; Das, Olfson, McCurtis, & Myrna, 2006; Flynn, O'Mahen, Massey, & Marcus, 2006). The low rates of treatment receipt among depressed perinatal women are striking, and multiple surveys have explored women's perceptions of barriers to care and preference for psychotherapy or pharmacotherapy approaches. Information from such surveys, however, has had limited impact on increasing rates of treatment given ongoing problems with engaging women and providing access to empirically supported treatments. This study addresses important gaps in the existing survey literature, exploring women's priorities for depression care and perceptions of an innovative method of care involving peer delivery, using an online survey among women who experienced depression during pregnancy or the postpartum.

Goodman (2009) explored treatment barriers by administering a questionnaire to a convenience sample of women recruited in two obstetric clinics waiting rooms ( $N = 509$ ). The questionnaire asked what treatments participants would be most likely to receive and their views about psychotherapy and pharmacological treatment (Goodman, 2009). Most of the women in

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this sample were white, well-educated, married, and high-income (Goodman, 2009). Frequently reported barriers included lack of time, stigma, and childcare issues, in descending order.

Additionally, many women reported that they would not know where to access mental health services (26.2%) and that they might not be able to afford it (18.8%).

Dennis and Chung-Lee (2006) also report on stigma, but add that health professionals cannot then address patient needs because women feel they cannot disclose what they are feeling. In addition, women report uncertainty of where to go for help, which treatment is best, and lack of knowledge about postpartum depression (Dennis & Chung-Lee, 2006; O'Mahen & Flynn, 2008). These results indicate the need for mental health services that are accessible and affordable so that women can obtain the help they need.

Further, O'Mahen and Flynn (2008) conducted a survey among women recruited in urban and suburban obstetric and gynecological clinics ( $N = 447$ ). Participants were asked to fill out a depression measure, how confident they were in mental health treatment, and what barriers they faced in accessing treatment (O'Mahen & Flynn, 2008). Suburban participants were primarily white and high-income, and urban participants were predominantly African-American, living in poverty (O'Mahen & Flynn, 2008). In this study, women reported that the greatest barriers to treatment were insurance, inability to pay, and transportation (O'Mahen & Flynn, 2008).

Flynn, Henshaw, O'Mahen, and Forman (2010) also explored women's preferences for care in a qualitative study with women with a history of depression and in a low SES ( $N = 23$ ). Women participated in semi-structured interviews about their views on facilitators and obstacles to depression treatment. Results indicated that women preferred receiving mental health treatment in obstetrics clinics (Flynn, Henshaw, O'Mahen, & Forman, 2010). Additionally, women reported wanting a more active referral process for treatment, as well as more flexible

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treatment options (Flynn, Henshaw, O'Mahen, & Forman, 2010). These findings are useful, as not only is this a way for women to have more access to services, but it also integrates patient preferences and highlights the importance of responding to such preferences.

Multiple studies suggest that perinatal women prefer non-pharmacologic treatments (e.g., Battle, Salisbury, Schofield, & Ortiz-Hernandez, 2013; Goodman, 2009; O'Mahen & Flynn, 2008). Such preferences are consistent with studies of the general population of both depressed and anxious individuals (e.g., Huppert, Franklin, Foa, & Davidson, 2003; Moradveisi, Huibers, Renner, & Arntz, 2014; Steidtmann et al., 2012). As reported by Goodman (2009), 92% of participants reported they would likely engage in individual therapy if needed, whereas only 35% reported they would take medication. This lack of preference for pharmacologic treatment is evident among women of color and white women. Both African American and white women reported little desire to take antidepressant medication (O'Mahen & Flynn, 2008). In a study by Goodman, Dimidjian, and Williams (2013) that focused on African American women's preferences for depression prevention ( $N = 60$ ), participants were given information about three different depression prevention options: pharmacotherapy, mindfulness based cognitive therapy (MBCT), and interpersonal therapy (IPT). The women in this study rated the two psychosocial treatments as more preferable and credible than pharmacotherapy (Goodman, Dimidjian, & Williams, 2013). Additionally, in a survey of 200 pregnant women about their treatment preferences, MBCT and IPT were most frequently preferred, at 43% and 44%, respectively (Dimidjian & Goodman, 2014).

Battle, Salisbury, Schofield, and Ortiz-Hernandez (2013) interviewed 61 predominantly white pregnant women selected from a larger study about their depression treatment preferences. The authors identified three key themes as to why women did not want to take antidepressants:

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fear of negative effects on the developing baby, shame and guilt about using medication, and discomfort with use in general and potential dependence (Battle, Salisbury, Schofield, & Ortiz-Hernandez, 2013). This last point ties into the need for offering treatment options, as women may not be willing to take medication in general, but this decision process can be even more difficult when concern for the baby is present (Battle, Salisbury, Schofield, & Ortiz-Hernandez, 2013).

In summary, multiple studies suggest that perinatal women perceive significant barriers to care and have strong preference for psychotherapy over pharmacotherapy, when given the choice. There are two important gaps, however, which have limited the clinical impact of these findings with respect to increasing access to effective care. First, most studies have focused primarily on preference for a modality of care (e.g., psychotherapy vs pharmacotherapy). Given that rates of treatment seeking among perinatal women continue to be low, even when psychotherapy is available, it is possible that clinical services have not been offered in ways that are most responsive to women's priorities for care. It may be important to understand women's priorities for care such that services can be customized to be most responsive to women's perceived needs. Descriptive studies among depressed patients generally provide an instructive model. Zimmerman et al. (2006) administered a questionnaire to depressed outpatients ( $N = 535$ ), asking them to rate the importance of different items about how they would determine if their depression was in remission. They found that participants rated features of positive mental health, such as optimism and a return one's usual self and functioning, as most important for determining if depression had been successfully treated (Zimmerman et al., 2006). This type of nuanced information about priorities for care may help to guide the ways in which clinical services, including peer counseling, are offered for perinatal women.

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Second, most studies have examined women's preferences for psychotherapy, even though access to psychotherapy is a limited resource in most settings. Few studies have examined women's preferences and perceptions for non-traditional delivery approaches. This is an important gap in our understanding of perinatal women's preferences, which we address in the present study through a focus on attitudes toward peer counseling. Peer counseling, where those with their own experience of mental illness help those of similar social and demographic characteristics, has garnered recent attention as an effective, affordable, and easily transmittable method to provide treatment to those with psychological distress, including substance use, psychotic and affective disorders, depression, and those with depressive and anxious symptomology in palliative cancer care (Davidson et al., 2001; Mason et al., 2015; Morris, Schueller, & Picard, 2015; Ramsay, Ramsay, & Main, 2007; Walker & Bryant, 2013). Further, in a randomized controlled trial, Patel et al. (2016) tested the effectiveness of a depression treatment program delivered by lay counselors. There were 245 participants in the treatment group, with an average age of 42.4 years, were predominantly female, married, and unemployed with a primary school level of education (Patel et al., 2016). Most participants in the treatment group scored moderately severe for depression on the Patient Health Questionnaire-9 (PHQ-9), and expected the counseling to be a little or somewhat helpful (Patel et al., 2016). Participants in the treatment group had significantly lower symptoms and higher remission rates compared to those in enhanced usual care (EUC) (Patel et al., 2016). Participants in the treatment group also had better outcomes regarding disability, days out of work, intimate partner violence in women, behavioral activation, and suicidal thoughts or attempts compared to the EUC group (Patel et al., 2016). Additionally, participants accepted the treatment, and the treatment was cost-effective (Patel et al., 2016).

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Two studies have explored perinatal women's attitudes to peer counseling. Singla et al. (2014) examined what is regarded as important in peer-counselor programs and in peer counselors themselves. The authors conducted both in-depth interviews and focus groups with depressed and non-depressed mothers, family members, community health workers, and specialist care providers in an urban setting in India, and in a rural setting in Pakistan, totaling 99 in-depth interviews and 13 focus groups across both settings (Singla et al., 2014). Across both settings, they found that peers from the same community were most preferred, as well as peers being mothers, middle-aged, educated, and having similar experiences and good communication skills (Singla et al., 2014). The rural setting in Pakistan, however, emphasized peer's family social standing, and the urban setting in India placed financial incentives as motivators for peers (Singla et al., 2014).

Atif et al. (2016) conducted a qualitative study on the barriers and facilitators to peer-delivered services for maternal mental health care in Pakistan. The authors interviewed primarily depressed mothers ( $n = 21$ ), as well as peer volunteers, primary health care staff, husbands, and mothers-in-law, identified as key stakeholders in the acceptability and implementation of a peer-counselor program (Atif et al., 2016). The mothers in this study were all married, had elevated depression scores on the PHQ-9, and lived in joint families, where multiple generations of family members live in the same household (Atif et al., 2016). Also, the peers in this study were on average older than the mothers, and had training to assist with counseling skills and techniques to help improve mothers' health, and were provided with supervision to ensure support and intervention loyalty (Atif et al., 2016). Results suggested that peer volunteers were accepted as mental health care providers by all groups, a key finding considering the importance of extended family structure, and that peer volunteers needed effective training and supervision and support

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from the community to maintain motivation (Atif et al., 2016). For facilitators, the authors found that peer volunteers needed to be local, trustworthy, empathetic, and have had similar experiences as mothers (Atif et al., 2016). To ensure credibility, the authors also identified that peer counseling had to be culturally appropriate, as well as be linked with primary health care (Atif et al., 2016). Finally, barriers were women's lack of autonomy, mental illness stigma, and unwillingness to participate among some mothers (Atif et al., 2016).

These papers highlight the potential value and acceptability of peer counseling to treat depression during pregnancy and the postpartum and identify some peer counselor characteristics (e.g., culture and social variables) that may play a key role in delivering services. However, both studies were conducted in low- and middle-income countries, raising questions about the extent to which findings generalize to settings within the United States.

Thus, the aim of this study is to enhance our understanding of perinatal women's priorities for care and by exploring perceptions of a novel delivery method, peer counseling. We conducted a web-based survey with women who were pregnant or had a young child and who had a history of depression and examined, descriptively, two domains. First, we inquired about the concerns that women prioritized as important for treatment and the goals of treatment, following Zimmerman et al (2006). Second, we inquired about women's perceptions of the benefits of a peer delivery approach, preferred qualities of a peer, barriers to and facilitators of a peer delivery approach, and perceptions of training needs of peers.

## Methods

### Participants

Participants were 118 women who were members of Kaiser-Permanente Colorado, were pregnant or had a child under age 3, reported experiencing depression during pregnancy or the

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postpartum. A total of 184 visited the study website, and of those, one was excluded because she had not delivered a baby at Kaiser-Permanente Colorado in the last three years, six were excluded because they did not report experiencing depression or anxiety during pregnancy or postpartum, and 59 did not complete the survey items. Participants were, on average, 33.17 years old, and the majority were white, middle income, employed, married, college educated, and with a baby between 0-12 months of age. Sociodemographic characteristics of the sample are summarized in Table 1.

### **Procedures**

Participants were recruited through Kaiser Permanente of Colorado (KPCO). An email with a link to a Research Electronic Data Capture (REDCap) survey was sent to 997 KPCO members who had given birth within the last three years and had an indicator of depression during pregnancy or the postpartum. Participants completed the survey on a voluntary basis, and were offered the incentive of the chance of being selected to receive one of three \$100 gift cards. Participants were required to be 1) female, 2) given birth within the last three years, 3) above the age of 18, and 4) experienced symptoms of depression during pregnancy or postpartum. Participants were consented online before beginning the survey. The survey was conducted during February and March 2017. This study was approved by the KPCO Institutional Review Board and by institutional authorization with the University of Colorado Boulder.

### **Measures**

Question items were generated using a literature review of published articles on treatment preferences among perinatal women, perceptions of peer delivery in low- and middle-income countries, and priorities for depression care in the general population. In addition, items were generated from a qualitative analysis of focus group data with pregnant and postpartum women

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who had experienced depression ( $N = 20$ ). Items that are a focus of the current report focused on two domains: women's priorities for depression treatment and women's perceptions of a peer delivery approach.

To assess women's priorities for depression treatment, we asked four sets of questions. First, following the methods used by Zimmerman and colleagues (2006), we also asked, "For every health problem, it is important to consider the goal of treatment when developing a program. Using the following rating scale, please indicate how important you think each of the following factors are in determining whether a woman's depression has been successfully treated during pregnancy or postpartum." Women were asked to rate a series of 17 items on a 3 point Likert scale, which included 0 (not important in determining if someone is in remission from depression), 1 (somewhat important in determining if someone is in remission from depression), and 2 (very important in determining if someone is in remission from depression). Given our focus on perinatal women's experiences, we added 1 item (i.e., taking good care of her baby) to the set used by Zimmerman et al. (2006). We also asked women to report which items among the full set were perceived to be the 3 most important concerns for depressed pregnant or postpartum women.

Second, we asked, "Thinking back to concerns you may have experienced during pregnancy and postpartum, which of the following did you want to be addressed in your care?" Women were asked to rate a series of 20 items on a 4-point Likert scale, ranging from 1 (yes, definitely important) to 4 (no, definitely not important), with an option to indicate "not applicable."

Third, we asked about women's satisfaction using the Client Satisfaction Questionnaire (Attkisson & Zwick, 1982; Larsen, Attkisson, Hargreaves, & Nguyen, 1979) to obtain

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information about the overall context of their satisfaction with services. The CSQ-8 is a self-report measure that asks respondents to rate how satisfied they were the type of services they had received. It is a shorter version of the CSQ-18, and performs just as well at capturing client views of services received (Attkisson & Zwick, 1982; Larsen, Attkisson, Hargreaves, & Nguyen, 1979). We also probed specific areas of potential dissatisfaction: length of time to appointments, match between frequency/intensity of care provided and nature of problems, convenience of location and appointment availability, number of steps required to receive care, knowledge of provider, and quality of information provided about medication use during the perinatal period.

To assess women's perceptions of a peer delivery model, we first provided a description of behavioral activation therapy as an example of the intervention that could be delivered by peers. Specifically, we stated:

*We are developing a program to help pregnant and postpartum women recover from depression and stay well over time. This new program will involve support from other mothers who have had similar experiences during pregnancy or the postpartum period. This new program is also intended to overcome barriers that many women experience in the healthcare system, such as long waiting times for receiving care from mental health professionals. The new program will train PEERS (other mothers who have experienced depression) to deliver an approach called "Behavioral Activation." Behavioral Activation is based on the idea that we can change how we feel by changing what we do. It helps women to engage in activities that bring pleasure or accomplishment and solve problems to reduce stress. Research shows that Behavioral Activation is effective in treating depression, anxiety, and stress among pregnant and postpartum women. To make the approach widely available, our new program will train PEERS to deliver*

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*Behavioral Activation. We are interested in your honest opinions about this new program, whether they are positive or negative. Please answer all of the questions.*

We then asked the following questions that were rated on a 3 point Likert scale, ranging from 1 (not important) to 3 (important): 1) What do you think are the main benefits to a peer-delivery program like the one just described?" 2) "How likely would each of the following be to interfere with a woman's willingness to participate in a peer-delivered behavioral activation for depressed pregnant or postpartum women?"; 3) "How important is each of the following for a successful peer-delivered behavioral activation for depressed pregnant or postpartum women?"; 4) "If you were to receive behavioral activation for depression during pregnancy or postpartum from a peer, how important do you think each of the following qualities would be in that peer?", and 5) "How important are each of the following problems for a peer to learn about in their training to deliver behavioral activation for depressed pregnant or postpartum women?".

### **Statistical Analysis**

Given that the aim of the study was to characterize women's priorities for care and preferences and perceptions regarding peer delivery, we utilized descriptive statistics to summarize women's responses to the seven questions described above. Given the large number of items provided to women to explore priorities for training peers, we also conducted exploratory factor analysis using varimax rotation and principal axis factoring to identify training topic factors by the criterion of eigenvalues greater than one to determine the number of factors and the amount of variance accounted for by those factors. We used loadings of 0.40 or higher to identify the important items per factor (Floyd & Widaman, 1995). Analyses were run on SPSS Version 23.

## **Results**

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### **What are priorities for depression treatment for pregnant and postpartum women?**

As reported in Table 2, with respect to criteria for remission, participants' ratings indicated the importance of the perinatal specific item added to the original list used by Zimmerman and colleagues (2006): taking good care of her baby (85% indicated that this was "very important"). As reported in Table 2, overall, 75% or greater reported that functional capacities (i.e., taking good care of baby; functioning well; return to usual functioning at work, home, or school; able to fulfill usual responsibilities; able to cope with the normal stress of life), feeling "in control" or "normal" (i.e., feeling in emotional control; feeling like her usual, normal self) and feeling "positive" or "well" (i.e., presence of positive mental health; general sense of well-being) were important to determining whether a woman's depression has been successfully treated. Women endorsed "feeling happy most of the time" least often as "very important" and, among all items, "feeling happy most of the time" was most likely to be described as "not at all important" (8.5% of women).

As reported in Table 3, among the set of 20 concerns listed, participants rated mood and anxiety symptoms as most important to be addressed in providing successful care for pregnant and postpartum women. Related affective items also were rated as important (i.e., feeling irritable and stressed). Overall, 50% or greater reported that the following concerns were "definitely" important to address in providing care to perinatal women: feeling down, sad, or depressed; anxiety; worrying; irritability; and stress. Approximately one-third or fewer women described the following concerns to be "definitely" important to address: muscle tension, problems concentrating or making decisions, trauma, physical pain, and intrusive thoughts about baby.

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As reported in Table 4, women reported overall satisfaction with care, as indicated by their responses to the CSQ-8 ( $M = 23.26$ ,  $SD = 6.38$ ); however, our examination of the most common reasons for dissatisfaction with care experience in supporting mental health and well-being during pregnancy and the postpartum indicated several items endorsed as “very dissatisfied” or “indifferent or mildly dissatisfied,” including: length of time to get an appointment with a psychiatrist, the match between the frequency or intensity of care received relative to problems experienced, and the number of steps required between the initial request for care and the first session received.

### **How do women perceive peer delivery of depression care for pregnant and postpartum women?**

As reported in Table 5, participants, on average, endorsed positively all items as potential benefits of a peer-delivery approach. Participants endorsed positively multiple affective and social belonging benefits of working with a peer, including that a peer would be more likely to understand my experience than a behavioral health professional ( $M = 2.61$ ,  $SD = .54$ ), that I would feel less alone or isolated if I were working with a peer during pregnancy or postpartum ( $M = 2.56$ ,  $SD = .61$ ), and that a peer would help to reduce the stigma of being depressed, anxious, or stressed while pregnant or postpartum ( $M = 2.54$ ,  $SD = .62$ ), and that it is easier to talk with a peer than a behavioral health professional ( $M = 2.13$ ,  $SD = .68$ ). Participants also endorsed positively pragmatic factors relevant to accessing mental health care, including that I could access a peer more easily than a behavioral health professional ( $M = 2.47$ ,  $SD = .61$ ), and that a peer could spend more time with me than a behavioral health professional ( $M = 2.46$ ,  $SD = .64$ ).

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Despite perceived benefits of the peer delivery approach, participants also strongly endorsed several potential barriers (see Table 6). With respect to domains that might interfere with women's willingness to participate in peer-delivered behavioral activation for depressed pregnant or postpartum women, participants reported, on average, that the following were at least somewhat likely to interfere (in descending order): failure to follow through on referrals to the peer program ( $M = 2.42$ ,  $SD = .60$ ), concerns about peers protecting confidentiality ( $M = 2.36$ ,  $SD = .67$ ), shame or stigma related to having mental health concerns ( $M = 2.30$ ,  $SD = .63$ ), failure of providers to refer to the peer program ( $M = 2.25$ ,  $SD = .73$ ), lack of awareness among women that treatment is needed ( $M = 2.18$ ,  $SD = .72$ ), concerns that peers are not mental health professionals ( $M = 2.16$ ,  $SD = .63$ ), and receiving disapproval from family members about participating in a peer program ( $M = 1.56$ ,  $SD = .73$ ).

To assess structural facilitators or barriers to a peer delivery program, participants also rated the perceived importance of how information about the program is shared with women, where the peer meets with women, the extent of contact among women receiving treatment in the program, and the nature of supervision provided to the peers. As summarized in Table 7, participants reported strong preference for referral by their obstetric provider during routine prenatal visit ( $M = 2.87$ ,  $SD = .34$ ). Participants also favorably endorsed all of the location options, although home delivery connected with the perinatal homecare program was rated most positively ( $M = 2.88$ ,  $SD = .35$ ). All options for contact with other women in the program were rated positively. Supervision from a licensed mental health clinician was rated most positively among the supervision options ( $M = 2.66$ ,  $SD = .57$ ).

For the importance of peer-counselor qualities (see Table 8), participants rated interpersonal skills as highly important. The highest rated qualities of a peer-counselor were

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being accepting and non-judgmental ( $M = 2.94, SD = .27$ ), trustworthy ( $M = 2.94, SD = .27$ ), a good listener ( $M = 2.91, SD = .29$ ), and empathic ( $M = 2.87, SD = .34$ ). The lowest rated were peers having similar demographic characteristics, with the peer sharing the same race, ethnic, and cultural background ( $M = 1.41, SD = .62$ ), sharing the same religion ( $M = 1.58, SD = .71$ ), and living in the same town or neighborhood ( $M = 1.61, SD = .67$ ).

Given the large number of potential peer training content areas that might supplement core training in the behavioral activation approach, we used exploratory factor analysis to examine participant ratings. Bartlett's Test of Sphericity was statistically significant ( $\chi^2 = 2062.70, df = 496, p < 0.001$ ). The exploratory factor analysis suggested an 8-factor structure, as reported in Table 9. The first factor refers to logistical training content. The second factor refers to managing conflicts and maternity leave. The third factor refers to health problems and birth complications. The fourth factor refers to KPCO healthcare and managing a difficult birth. The fifth factor refers to physical symptoms during birth and infant care. The sixth factor refers to support for breast feeding. The seventh factor refers to suicidality and thoughts of harming one's baby. The eighth factor refers to parenting. The items that did not load onto any factors were domestic violence and getting social or practical support.

## Discussion

The aims of this study were to describe women's priorities for depression treatment and how they perceive peer delivery of depression care. Completed through a REDCap survey sent to mothers within the KPCO network who had given birth within the last three years, we found that women wished mood symptoms had been addressed in their care, and that they measure depression remission as taking good care of their baby and returning to their normal level of functioning. Despite listing some potential barriers to a peer-counselor program, such as not

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following up on referrals and stigma associated with depression, women felt that peers with good interpersonal skills could help them not feel as isolated during pregnancy or postpartum. Women also believed that being referred to a peer delivery program in person by their obstetric provider and having peers supervised by clinicians would add to the success of a peer delivery depression treatment.

Women's determination of depression remission is consistent with previous findings (e.g., Zimmerman et al., 2006). Most women's expectations appear to center around returning to their normal level of functioning, as they rated taking good care of their baby, functioning well, and feeling like their normal self as very important. In contrast, feeling happy most of the time and not getting overwhelmed by stress were not rated as very important. This suggests that women not only wish to return to the way they felt before becoming depressed, but also strive to be a good mother. This also suggests that women's expectations of treatment are realistic, as they want care that will afford them the ability to feel positive, consistent with other findings (Zimmerman et al., 2006). Keeping women's measure of depression treatment success in mind can be an effective way in providing more suitable care, thus motivating them to enter and stay in treatment. Further, using these responses is a helpful glimpse into how peer delivery depression treatment could be successful for pregnant and postpartum women. Additionally, responses indicate that women had manageable expectations about the inevitable stressors of life, and that such areas may not need to be focused on during treatment. Managing everyday expectations may be an important part of mental health care education, however.

Chief among the areas women wished had been addressed during their care were depressive and anxious symptoms, worrying, feeling irritable, and stress. However, women did not find hyperventilating, thoughts about death or suicide, and trauma as areas they wanted

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addressed in their care. Thus, depressive and anxious symptoms occurred often in pregnant and postpartum women, while hyperventilating and suicidality did not. This suggests that depression and anxiety impact women's mental health during pregnancy and postpartum more often than suicidality, and this finding is consistent with other studies (e.g., Vesga-López et al., 2008).

These responses suggest that women desire treatment that would better treat their depression and anxiety, and may add to the success of a peer-counselor program if such symptomology is addressed during care.

Women did report being overall satisfied with their care, suggesting their needs are being addressed in their current form of care. However, many women did report being "very dissatisfied or indifferent or mildly dissatisfied" with several parts of their care. Chiefly, they were dissatisfied with the length of time it took for them to get an appointment with a psychiatrist, the match between the frequency or intensity of care they received relative to the problems they experienced, and the number of steps between when they asked for care and their first session. These responses suggest that women had trouble accessing care in a timely manner for the level of distress they were experiencing, and understanding this is helpful for how to best address women's mental health care in the future. Moreover, implementing timely access in peer delivery depression treatment may add to its success in providing women with the care they need.

Women, generally, felt positively about all potential benefits of a peer-delivery approach. Consistent with other research, though, women felt most positively about a peer as someone who is more likely to understand their experience, they would feel less isolated during pregnancy or postpartum, and a peer could help decrease the stigma of depression or anxiety, an often-cited barrier to treatment (Atif et al., 2016; Singla et al., 2014). Considering women often do not know

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who to approach for treatment, and are just as often ashamed to do so, this is an encouraging finding for the success of a peer-counselor program so that women have a treatment they feel comfortable to utilize. This may be because women feel a peer-counselor program can afford them the means to disclose their feelings and address more sensitive issues that they normally would not feel comfortable to discuss with others because of guilt and fear of misunderstanding. Women also felt positively about the ease of access to a peer and the time a peer could spend with them, and is encouraging for the success of a peer delivery treatment as women reporting having trouble accessing care in a timely manner.

Perceived benefits of a peer-counselor program appear to play a role in potential barriers, however. Despite the comfort women may feel with approaching peer-counselors, such informality may also be an obstacle to successful treatment, as women expressed concern about peers protecting confidentiality. Interestingly, women's response to concerns that peers are not mental health professionals was one of the lowest, despite women expressing a preference for receiving treatment from a mental health professional (O'Mahen & Flynn, 2008). Thus, women may view peers as having the capability to provide care, based on the qualities described above, but without the same training as mental health professionals, peers may not have the same attention to privacy. Women appear to have strong concerns about privacy, because they also listed feelings of shame or stigma related to having mental health concerns as a barrier to a peer-counselor program (Atif et al., 2016; Singla et al., 2014). Thus, despite peers helping with reducing the stigma of mental illness, having mental illness may also continue to prevent women from seeking the help they need in the first place. Additionally, utilizing a peer-counselor program also seems to be a potential barrier, as women reported failure to follow through on referrals to the peer program as the highest perceived barrier. These responses suggest the need

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to have peers be adequately trained in maintaining confidentiality, while emphasizing the benefits of a peer-counselor program to women so that they are encouraged to enter.

Women's ratings for the structural facilitators or barriers of the success of a peer-counselor program offer insight into how to best overcome the barrier of women not following up on referrals, and peers protecting confidentiality. Women appear to value in-person information dissemination, as they rated having a nurse visiting after their baby is born and their OB provider offering information during routine prenatal visits as most important, and rated flyers in clinics as least important. Providing continued referrals in-person, and from trusted healthcare providers, may be the best way for women to enter a peer-counselor program as their voices may carry more weight. Additionally, women felt most positively about care delivery in their home. This suggests that women would feel most comfortable having peers offer treatment in their home, and adds to the finding that women view a peer as someone who could best understand their experiences. Also, consistent with other findings, women rated peer-counselors receiving ongoing supervision from a licensed mental health clinician as important (Atif et al., 2016). Providing continued in-person referrals, supervision for peer-counselors, and care in women's homes can be an effective way to overcome perceived barriers, and add to the success of providing treatment for pregnant and postpartum women.

Women felt most strongly about the interpersonal skills of a peer-counselor, as they were rated as the most important for peers to exhibit; chiefly, being accepting and non-judgmental, trustworthy, and a good listener (Atif et al., 2016; Singla et al., 2014). Women appear to want to have a peer counselor who can manage discussing such sensitive topics, and have access to someone they are comfortable with disclosing their feelings to. However, inconsistent with previous research (e.g., Atif et al., 2016), demographic characteristics of peer counselors were

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rated least important, and so suggests women feel selecting peers based on their interpersonal skills is a key part of the success of peer delivery depression treatment. These findings also add to the importance of being aware of cultural attitudes that may assist or hinder a peer-counselor program.

Factor analysis of women's ratings of peer training content areas identified an eight-factor structure. Question items loaded onto one factor each, and were identified as logistical training content, managing conflicts and maternity leave, health problems and birth complications, KPCO healthcare, physical symptoms during birth and infant care, support for breast feeding, suicidality and thoughts of harming one's baby, and parenting. These eight factors suggest there is an underlying grouping of women's responses to what they believe is important for peer-counselors to be trained in. These findings also suggest that for each factor there are question items that cluster together, and if women rate one as important, then it is likely they will rate the other as important areas for peers to be trained in. Additionally, the factors revealed by the items loaded onto them suggest overarching areas that women believe would be most beneficial for peer-counselors to be trained in, and is helpful in how to approach the training of peers. The initial identification of these factors offers an important glimpse into the success of peer delivery depression treatment, as women felt these areas would be helpful areas for peers to address, and so would add to their level of care. Further, these findings assist with what to focus on in the training of peers so that they can offer the best care possible.

Women notably rated thoughts of harming one's baby, suicidality, and domestic violence and understanding expected/unexpected emotional symptoms during pregnancy or postpartum as the most important peer training content areas. While women may have wanted depression and anxiety to have been treated in the care they received, these responses suggest what women

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believe are central training areas for peer-counselors, so that they can assist with mental health care during and after pregnancy, especially in regards to the safety of the mother and their child. Consistent with other research, this may be because women viewed mental health care as the responsibility of mental health professionals, while peer counselors could be used as a resource for more acute, severe problems that may arise during and after pregnancy (O'Mahen & Flynn, 2008). Additionally, women did not view logistical training content as important, such as transportation, health insurance, and finances, and suggests that women are comfortable or have other resources for such concerns. This last point reinforces the possibility that women view peer-counselors as someone they can contact in the case of more serious mental health and relationship consequences.

These findings add to the importance of assessing women's preferences in peer delivery depression treatment for its success, as there is emerging evidence that matching treatment preference is important for patient retention and outcome. In one study with adults with major depression, results indicated that if treatment preferences for psychotherapy or pharmacologic treatment are not matched with treatment given, outcomes are more negative, with higher rates of attrition and less positive working alliance than if patients are given their preferred treatment (Dunlop et al., 2012; Kwan, Dimidjian, & Rizvi, 2010). Swift, Greenberg, Tompkins, and Parkin (2017) found, overall, participants assigned to pharmacotherapy were 1.76 times more likely to refuse treatment compared to those assigned to psychotherapy, with those with depression 2.16 times more likely to refuse. Further, depressed patients were also 1.26 times more likely to end treatment early if assigned to pharmacotherapy compared to psychotherapy, compared to an overall rate of 1.20 times (Swift, Greenberg, Tompkins, & Parkin, 2017). In contrast, Steidtmann et al. (2012) found that patients who did not express a treatment preference showed greater

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depressive symptom reduction on the HAM-D after the first phase, and Dunlop et al. (2012) also reported preference did not greatly influence outcome among those who were willing to be randomized to a treatment condition. These findings may have to do with participant beliefs about the causes of depression. Those who prefer medication believe the cause to be a chemical imbalance, while those preferring psychotherapy attribute their depression to stressful events (Dunlop et al., 2012; Steidtmann et al., 2012).

These findings suggest that matching patients with their preferred care may play a role in patients remaining in treatment. Matching treatment preference can also be an effective way to help patients remain motivated so that better treatment outcomes are maximized. Greater access to care and referral processes can also be effective for education and different conceptualizations of depression (e.g., Flynn, Henshaw, O'Mahen, & Forman, 2010). Moreover, based on the results in this study, there are numerous areas a peer-counselor program must cover for it to have potential as a treatment modality. In addition to the peer qualities, depression treatment goals, peer training content areas, and the other areas identified in this study, peer counseling must also be effective in treating the mental illness it hopes to target. Behavioral Activation (BA) is a good candidate for this, as it has been shown to be an effective treatment for depression (e.g., Cuijpers, van Straten, & Warmerdam, 2007; Dimidjian et al., 2006). As found by Dimidjian et al. (2006), BA significantly outperformed cognitive therapy, and was comparable to antidepressant medication in treating those more severely depressed. This finding is encouraging because many mothers are hesitant to take antidepressants due to the side effects to themselves and their child (Goodman, 2009). Further, the meta-analysis by Cuijpers, van Straten, and Warmerdam (2007) found that the effect size of BA interventions compared to control conditions was 0.87.

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An added benefit of BA is that it is straightforward and does not need extensive training to administer (Cuijpers, van Straten, & Warmerdan, 2007). This last point is reflected in the study by O'Mahen et al. (2014), where BA was delivered through a guided internet program, and 62.2% of women in the internet condition improved on depression scores post-treatment. These findings not only reinforce the evidence for BA's effectiveness, but are also encouraging for the utilization of BA in peer counseling programs. The straightforward steps of BA can also provide the training peer counselors have expressed they needed without affecting their approachability.

Further, it appears that peer counseling can be an effective manner in providing treatment to those who otherwise may not have access to such services. This is keeping in mind that cultural factors must be assessed before providing peer counseling, as it was found to be a key factor in how well received it would be by counselees (e.g., Atif et al., 2016; Singla et al., 2014). Training must also be given, but what makes peer counseling effective—having similar experiences, allowing peer counselors to share their experiences—must not be overtaken. These findings, then, are encouraging for perinatal depression, as it is prevalent and many women with this mental illness are not accessing the services they need.

This study has a few strengths. First, there were over a hundred participants, offering a sizeable look into what women regard as important for the success of a peer-counselor program. Second, participants had recently been in care with KPCO, and so were familiar with both the level and type of care they had received. Thus, the women in this study could offer a more accurate glimpse into what areas of their treatment that need to be improved, and what aspects of peer delivery depression treatment could best address those areas.

This study has a few limitations. First, there are issues of generalizability. Responses came from participants within one care network in one state. Further, based on the demographics

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of the respondents, most women in this study were white, young, well-educated, and had high-incomes. Many women were employed full time, and had an employer sponsored health plan. Such characteristics reveal that the women in this study appear to have the means to access KPCO services, and that this study's findings may not reflect what women of different demographic characteristics believe to be important for a peer-counselor program. A second limitation is that the survey may have selected for women who were highly motivated to complete it. They may feel strongly about the level and type of care they received, wanting to offer their views about what other treatment types could do to address their care. The responses in this study may be influenced by those who would be highly motivated to enter a peer delivery depression treatment program. Thus, more fully capturing women's views about their preferences and priorities in depression treatment may not have been fully assessed.

This study sought to increase our understanding of what perinatal women prioritize in their mental health care through a survey that assessed their beliefs on the benefits, barriers, and logistics of peer delivery depression treatment, how they would determine depression remission, and what qualities and training peer-counselors would need for peer delivery depression treatment to be successful. Based on the responses, women feel that peer-counselors would be more likely to understand their experiences during pregnancy, believe peer-counselors should have good interpersonal skills, and should be trained in areas that would help mothers navigate more severe interpersonal difficulties, such as thoughts of harming one's baby and domestic violence. Women rated not following up on referrals to a peer-counselor program as the biggest barrier to the program's success, but their ratings on the logistics of a peer program offered a potential solution through in-personal referrals. Further, women reported taking good care of their baby and functioning as her normal self as most important for depression remission. This

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study's findings offer a helpful glimpse into women's preferences and priorities for treatment, and what they believe would lead to successful peer delivery depression treatment.

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## WOMEN'S TREATMENT PREFERENCES

Table 1

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*Sample Demographics*


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Race, <i>n</i> (%)	
Caucasian	80 (69.0)
Hispanic/Latino	17 (14.7)
Multiple	11 (9.5)
African American	7 (6.0)
Asian	1 (.9)
Currently pregnant, <i>n</i> (%)	
Yes	11 (9.3)
No	107 (90.7)
Baby between 0-12 months' old, <i>n</i> (%)	
Yes	60 (51.3)
No	57 (58.7)
Annual Household Income, <i>n</i> (%)	
Less than \$10,000	3 (2.6)
\$10,000-\$25,000	4 (3.4)
\$26,000-\$50,000	15 (12.8)
\$51,000-\$75,000	30 (25.6)
\$76,000-\$100,000	26 (22.2)
More than \$100,000	39 (33.3)
Marital Status, <i>n</i> (%)	
Married	100 (84.7)
Single or dating	12 (10.2)
Domestic partner	3 (2.5)
Divorced or separated	2 (1.7)
Widowed	1 (.8)
Employment Status, <i>n</i> (%)	
Full-Time	72 (61.0)
Part-Time	23 (19.5)
Unemployed (not a student)	23 (19.5)
Religious Affiliation, <i>n</i> (%)	
Catholic	25 (21.2)
Christian	44 (37.3)
Jewish	1 (.8)
Protestant	1 (.8)
None	37 (31.4)
Other	10 (8.5)
Living Arrangement, <i>n</i> (%)	
Living alone	4 (3.5)
With spouse/partner	19 (16.1)
With spouse/partner and children	88 (74.6)
With friend(s)/roommate(s)	1 (.8)
With family members	4 (3.4)

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Other	2 (1.7)
Insurance, <i>n</i> (%)	
Employer sponsored	99 (83.9)
Medicare	1 (.8)
Medicaid	7 (5.9)
Self-pay plan	3 (2.5)
Health care exchange	7 (5.9)
Another plan	1 (.8)
Age, in years, <i>M</i> ( <i>SD</i> )	33.17 (4.44)
Years of Education, <i>M</i> ( <i>SD</i> )	16.26 (2.44)
Number of Children, <i>M</i> ( <i>SD</i> )	2.25 (3.06)
Number of children under Kaiser-Permanente of Colorado (KPCO), <i>M</i> ( <i>SD</i> )	1.57 (.78)

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Table 2

*How Women Measure Depression Remission*

	n	M (SD)	Very important		Somewhat important		Not important	
			n	%	n	%	n	%
Taking good care of her baby	117	1.83 (0.44)	100	85.5	14	12.0	3	2.6
Functioning well	116	1.78 (0.49)	94	81.0	18	15.5	4	3.4
Feeling in emotional control	118	1.79 (0.43)	94	79.7	23	19.5	1	0.8
Return to usual level of functioning at work, home, or school	118	1.72 (0.57)	92	78.0	19	16.1	7	5.9
Feeling like her usual, normal self	118	1.75 (0.49)	92	78.0	23	19.5	3	2.5
Presence of positive mental health	118	1.76 (0.45)	91	77.1	26	22.0	1	0.8
Able to fulfill usual responsibilities	117	1.72 (0.54)	89	76.1	23	19.7	5	4.3
General sense of well-being	116	1.73 (0.50)	88	75.9	25	21.6	3	2.6
Able to cope with the normal stress of life	118	1.75 (0.46)	89	75.4	28	23.7	1	0.8
Coping well with stressful events	115	1.70 (0.51)	84	73.0	28	24.3	3	2.6
Participating in and enjoying relationships with family and friends	116	1.72 (0.47)	84	72.4	31	26.7	1	0.9
Absence of symptoms of depression	116	1.66 (0.51)	78	67.2	36	31.0	2	1.7
Participating in and enjoying usual activities	116	1.64 (0.53)	77	66.4	36	31.0	3	2.6
Not getting overwhelmed by stress	117	1.58 (0.59)	74	63.2	37	31.6	6	5.1
Satisfaction with life	117	1.59 (0.54)	72	61.5	42	35.9	3	2.6
Positive outlook on life	118	1.54 (0.58)	69	58.5	44	37.3	5	4.2
Feeling happy most of the time	118	1.41 (0.64)	58	49.2	50	42.4	10	8.5

## WOMEN'S TREATMENT PREFERENCES

Table 3

*Concerns Women Wanted Addressed in Their Care*

	n	M (SD)	Yes, definitely		Yes, generally		No, not really		No, definitely not	
			n	%	n	%	n	%	n	%
Anxious mood	116	1.49 (0.74)	73	62.9	32	27.6	8	6.9	3	2.6
Feeling down, sad, or depressed mood	116	1.47 (0.64)	70	60.3	37	31.9	9	7.8	0	0.0
Worrying	117	1.55 (0.69)	66	56.4	38	32.5	13	11.1	0	0.0
Feeling irritable	116	1.62 (0.72)	60	51.7	40	34.5	16	13.8	0	0.0
Stress	115	1.63 (0.72)	58	50.4	41	35.7	16	13.9	0	0.0
Trouble sleeping (insomnia) or sleeping too much	112	1.82 (0.91)	54	48.2	28	25.0	26	23.2	4	3.6
Low energy or fatigue	112	1.71 (0.78)	54	48.2	36	32.1	22	19.6	0	0.0
Not enjoying things that used to bring pleasure	111	1.79 (0.82)	49	44.1	38	34.2	22	19.8	2	1.8
Guilt or self-blame	111	1.93 (0.94)	47	42.3	31	27.9	27	24.3	6	5.4
Low motivation	113	1.88 (0.87)	47	41.6	35	31.0	28	24.8	3	2.7
Low self esteem	110	1.93 (0.89)	44	40.0	33	30.0	30	27.3	3	2.7
Intrusive thoughts	108	2.15 (1.09)	41	38.0	26	24.1	25	23.1	16	14.8
Problems concentrating or making decisions	111	2.02 (0.87)	39	35.1	33	29.7	37	33.3	2	1.8
Physical pain	106	2.19 (1.02)	35	33.0	28	26.4	31	29.2	12	11.3
Loss of appetite or overeating	111	2.32 (1.02)	34	30.6	19	17.1	47	42.3	11	9.9
Intrusive thoughts about my baby	105	2.65 (1.16)	26	24.8	17	16.2	30	28.6	32	30.5
Muscle tension	110	2.49 (1.07)	27	24.5	24	21.8	37	33.6	22	20.0
Thoughts about death or suicide	101	2.97 (1.12)	18	17.8	10	9.9	30	29.7	43	42.6
Trauma	100	2.93 (1.08)	17	17.0	11	11.0	34	34.0	38	38.0
Hyperventilating	100	3.05 (0.94)	10	10.0	11	11.0	43	43.0	36	36.0

## WOMEN'S TREATMENT PREFERENCES

Table 4

*CSQ-8 Item Responses*

	n	M (SD)	Very dissatisfied		Indifferent or mildly dissatisfied		Mostly satisfied		Very satisfied	
			n	%	n	%	n	%	n	%
CSQ-8 Total	117	23.26 (6.38)								
CSQ-8 Items										
1. How would you rate the quality of service you received to support your mental health?	118	2.86 (0.87)	9	7.6	26	22.0	55	46.6	28	23.7
2. Did you get the kind of service you wanted to support your mental health?	117	2.83 (0.8)	6	5.1	31	26.5	57	48.7	23	19.7
3. To what extent has KPCO met your needs to support your mental health?	117	2.98 (0.88)	5	4.3	31	26.5	42	35.9	39	33.3
4. If a friend were in need of similar help to support her mental health, would you recommend KPCO to her?	118	2.88 (0.96)	11	9.3	29	24.6	41	34.7	37	31.4
5. How satisfied are you with the amount of help you have received to support your mental health?	115	2.85 (0.9)	8	7.0	32	27.8	44	38.3	31	27.0
6. Have the services you received to support your mental health helped you to deal more effectively with your problems?	117	3.08 (0.8)	3	2.6	24	20.5	51	43.6	39	33.3
7. In an overall, general sense, how satisfied are you with the service you have received to support your mental health?	116	2.82 (0.91)	9	7.8	33	28.4	44	37.9	30	25.9
8. If you were to seek help to support your mental health again, would you come back to KPCO?	114	2.95 (0.94)	9	7.9	26	22.8	41	36.0	38	33.3

## WOMEN'S TREATMENT PREFERENCES

Table 5

*Perceived Benefits of Peer Delivery Depression Treatment*

Question	n	Mean (SD)
A peer is more likely to understand my experience	118	2.61 (.54)
I would feel less alone or isolated if I were working with a peer during pregnancy or postpartum	118	2.56 (.61)
A peer would help to reduce the stigma I feel about being depressed, anxious, or stressed while pregnant or postpartum	118	2.54 (.62)
I could access a peer more easily than a behavioral health professional	118	2.47 (.61)
A peer could spend more time with me than a behavioral health professional	117	2.46 (.64)
It's easier to talk with a peer than a behavioral health professional	117	2.13 (.68)

## WOMEN'S TREATMENT PREFERENCES

Table 6

*Perceived Barriers of Peer Delivery Depression Treatment*

Question	n	Mean (SD)
Failure of women to follow through on referrals to the peer program	118	2.42 (.60)
Concerns about peers protecting confidentiality	118	2.36 (.67)
Shame or stigma related to having mental health concerns	117	2.30 (.63)
Failure of KPCO providers to refer women to the peer program	118	2.25 (.73)
Lack of awareness among women that treatment is needed	116	2.18 (.72)
Concerns that peers are not mental health professionals	118	2.16 (.63)
Disapproval from family members about participating in a peer program	118	1.56 (.73)

## WOMEN'S TREATMENT PREFERENCES

Table 7

*Structural Components of the Success of a Peer-Counselor Program*

Question	N	Mean (SD)
The perinatal homecare program (nurse who visits your home after you baby is born)	116	2.88 (.35)
The OB provider during routine prenatal visits	117	2.87 (.34)
Ongoing supervision from a licensed mental health clinician	118	2.66 (.57)
After typical business hours	118	2.64 (.55)
By phone	118	2.62 (.51)
Ongoing supervision from a KPCO staff member	118	2.62 (.57)
With her baby	115	2.58 (.64)
Notification based on a woman's score after completing a depression screening tool	118	2.59 (.57)
By email or text	117	2.53 (.61)
In-person monthly groups at KPCO clinic	118	2.53 (.60)
On call as needed	117	2.50 (.60)
In-person at her home	118	2.42 (.67)
In-person at a KPCO OB clinic	117	2.41 (.66)
A stipend or payment for their work	118	2.37 (.69)
Online chats or discussions	118	2.37 (.66)
With other adult family members (e.g., partner, mother)	118	2.33 (.64)
An email that goes directly to your inbox (not a secure message from kp.org)	116	2.33 (.67)
A secured message from kp.org	117	2.32 (.61)
Online stories or tips from other moms	116	2.33 (.68)
In-person at a KPCO behavioral health clinic	118	2.31 (.68)
A flyer in prenatal care clinics	117	2.30 (.73)
A flyer with prenatal vitamins obtained in the pharmacy	118	2.11 (.75)

## WOMEN'S TREATMENT PREFERENCES

Table 8

*Desirable Peer Qualities*

Question	n	Mean (SD)
Trustworthy	118	2.94 (.27)
Accepting and non-judgmental	117	2.93 (.24)
Good Listener	118	2.91 (.29)
Empathic	118	2.87 (.34)
Supportive and Affirming	118	2.85 (.38)
Maintains appropriate boundaries	118	2.80 (.40)
Has experienced depression during pregnancy or postpartum	118	2.76 (.47)
Has experienced anxiety during pregnancy or postpartum	118	2.73 (.50)
Speaks the same language as me	117	2.65 (.59)
Has experienced anxiety at any point in her life	118	2.53 (.62)
Has experienced depression at any point in her life	118	2.52 (.60)
Has similar opinions to me about using medications for mental health concerns during pregnancy or postpartum (e.g., antidepressant, anti-anxiety, sleep medication, etc.)	118	2.32 (.68)
Is a similar age to me	117	1.97 (.68)
Is working or a stay-at-home mom like me	118	1.93 (.78)
Is a single versus married/partnered mom like me	118	1.92 (.77)
Has a similar economic or education background to me	118	1.68 (.68)
Lives in the same town or neighborhood as me	118	1.61 (.67)
Shares the same religion as me	118	1.58 (.71)
Shares the same race, ethnic and/or cultural background as me	118	1.41 (.62)

## WOMEN'S TREATMENT PREFERENCES

Table 9

*Factor Loadings for Exploratory Factor Analysis with Varimax Rotation of Peer-Counselor Training Content*

Item	F1	F2	F3	F4	F5	F6	F7	F8
Finances	.828							
Transportation	.807							
Health Insurance	.753							
Obtaining public support benefits or social services (e.g. WIC)	.605							
Sexual health or changes in my sexual relationship	.564							
Nutrition during pregnancy and postpartum	.503							
Relationship changes or conflict with partner		.601						
Starting maternity leave		.597						
Ending maternity leave		.597						
Negotiating work/family conflicts		.568						
Body changes during pregnancy or as a new mom		.544						
Sleep		.521						
Managing mom guilt		.487						
NICU or major health problems			.782					
Miscarriage or stillbirth			.706					
Prematurity or low birth weight			.675					
High-risk pregnancy			.561					
Smoking, drinking, or drug use			.406					

## WOMEN'S TREATMENT PREFERENCES

Domestic violence								
Connecting women with other healthcare providers at KPCO					.827			
Navigating the KPCO healthcare system					.725			
Difficult or traumatic labor and delivery	.400				.414			
Getting social or practical support								
Understanding physical symptoms during pregnancy/postpartum						.612		
Understanding expected/unexpected emotional symptoms during pregnancy/postpartum						.602		
Infant care (including crying, feeding/elimination, medical)						.553		
Support for breastfeeding							.762	
Support when breastfeeding doesn't work or bottle feeding							.563	
Suicidality								.878
Thoughts of harming one's baby								.745
Bonding with baby								.728
Parenting								.505
Eigenvalue	9.67	2.48	2.32	2.00	1.56	1.47	1.40	1.09

*Note.* Rotated factor matrix. Factor 1 corresponds to logistics. Factor 2 corresponds to managing conflicts. Factor 3 corresponds to KPCO healthcare. Factor 5 corresponds to physical symptoms. Factor 6 corresponds to support for breast feeding. Factor 7 corresponds to suicidality. Factor 8 corresponds to parenting.

## WOMEN'S TREATMENT PREFERENCES

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