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Exploring a self-help coping intervention for pregnant women with a miscarriage history

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ABSTRACT

Pregnant women with a history of miscarriages experience symptoms of anxiety and depression in a subsequent pregnancy and are in need of support in the period after miscarriage, when trying to get pregnant again and during the first phase of pregnancy.

The aim of this study was to investigate whether a Positive Reappraisal Coping Intervention (PRCI) and Daily Record Keeping (DRK) chart, developed for use in assisted conception treatment, are also appropriate for use in pregnant women with a history of miscarriage(s).

In this convergent parallel mixed method study, thirteen women visiting an Early Pregnancy Unit and/or Recurrent Miscarriage Clinic in a university medical center in the Netherlands were selected on the basis of the number of miscarriages and age. Exclusion criteria were not speaking the Dutch language, pregnancy after fertility treatment and having a medical cause identified for the miscarriages. Women used the PRCI and DRK for 3 weeks in a subsequent pregnancy. Quantitative data were obtained from the DRK and were analyzed by reporting frequencies and means for each case. Qualitative data were collected by semi-structured interviews and were analyzed by using thematic analysis.

The majority of the women were able to use the PRCI and DRK for 3 weeks. Women adapted the way in which they used the PRCI and DRK based on their judgment about the effect, the intensity of the emotions they experienced, or whether they felt the effort to use these instruments to be worthwhile or not.

The risk of miscarrying is around 15% and increases with age, 1–5% of women will suffer from recurrent miscarriages (RM) (Rai & Regan, 2006). Miscarriage causes distress due to all kind of factors like pain, blood loss, and sometimes treatment in a hospital but also because of the loss of the pregnancy, a baby, and motherhood (Lee & Slade, 1996). The symptoms of anxiety and depression, which occur after miscarriage (Craig, Tata, & Regan, 2002; Klock, Chang, Hiley, & Hill, 1997; Magee, MacLeod, Tata, & Regan, 2003), may also extend into a subsequent pregnancy (Fertl, Bergner, Beyer, Klapp, & Rauchfuss, 2009). In a longitudinal study among 143 women, pregnant woman with a history of miscarriage had higher levels of pregnancy related fear and state anxiety during their first trimester compared to pregnant women without miscarriages (Fertl et al., 2009).

Supportive care from professionals can be helpful after a miscarriage (Wojnar, Swanson, & Adolfsson, 2011) but also in a subsequent pregnancy (Andersson, Nilsson, & Adolfsson, 2012; Cote-Arsenault & Freije, 2004; Musters et al., 2013). An Internet survey of 305 women with a history of RM revealed fear of losing a future pregnancy to be the most prevalent concern according to 82% of these women (Séjourné, Callahan, & Chabrol, 2010). Women expressed the need for more supportive care from professionals not only after miscarriages but also in a new pregnancy (Séjourné et al., 2010). Interventions such as counseling sessions with nurses (Swanson, Chen, Graham, Wojnar, & Petras, 2009), psychological counseling (Nikcevic, Kuczmierczyk, & Nicolaides, 2007) and a weekly ultrasound (Clifford, Rai, & Regan, 1997) are offered after miscarriage. A problem is that most interventions are very time consuming and not all patients are able to use or have access to these interventions. Therefore, while support is often provided to women after miscarriage it is less readily available during a subsequent pregnancy (Clifford et al., 1997; Nikcevic et al., 2007; Rowsell, Jongman, Kilby, Kirchmeier, & Orford, 2001; Swanson et al., 2009).

Lancastle and Boivin (2008) developed a self-help Positive Reappraisal Coping Intervention (PRCI) for use during medical waiting periods. A medical waiting period is common in health care that require patients to wait for results that are potentially threatening to their well-being (Boivin & Lancastle, 2010). During the waiting period, patients have no control over the outcome, which often causes high levels of anticipatory anxiety and uncertainty that are difficult to cope with

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(Boivin & Lancastle, 2010). Patients can experience difficulties in developing adequate coping strategies to deal with these feelings.

A distinction can be made in problem-focused, emotion-focus and meaning-based coping strategies (Lazarus & Folkman, 1984). Problem-focused coping strategies are aimed at confronting and seeking solutions to the situation, while emotion-focused coping strategies focus on improving the associated level of emotional distress. Positive reappraisal coping is a meaning-based coping strategy aimed at changing the meaning of the situation, in particular, reinterpreting the situation in a more positive way (Folkman, 2011; Lazarus & Folkman, 1984). Meaning-based coping strategies have been observed to be effective in contexts that involve a sustained period of unpredictability and uncertainty. Tedlie Moskowitz, Folkman, Collette, and Vittinghoff (1996) and Folkman and Moskowitz (2000) observed that even in very stressful and uncertain situations such as caring for a terminally ill partner with HIV, participants who used meaning-based coping strategies like positive reappraisal also had positive emotions. The PRCI is based on the stress and coping theory of Lazarus and Folkman (1984) which proposes that the emotional response to a stressful situation is partly dependent on expectations of the significance and outcome of the specific situation. Meaning-based strategies as used in PRCI (e.g., deriving benefit from adversity or focusing on the positive) are future orientated strategies that have been shown to be effective in situations that require sustained coping efforts when a stressor situation is uncontrollable and its outcome unpredictable (Folkman, 1997; Folkman & Moskowitz, 2004). This is the case in a subsequent pregnancy after experiencing miscarriages.

The PRCI was originally developed for the waiting period after an embryo transfer in a fertility treatment (Ockhuijsen, van den Hoogen, Eijkemans, Macklon, & Boivin, 2014). The PRCI is a small card that contains ten positive reappraisal statements and a leaflet with a detailed explanation about this coping approach. Pregnant women with a history of miscarriages also experience a waiting period. They wait whether the pregnancy will be on-going or will end in a miscarriage again. This is the reason why PRCI could potentially also be a useful intervention for pregnant women with miscarriage(s) history.

To adapt and further develop the PRCI for women with miscarriages, the medical framework for developing complex interventions by the UK Medical Research Council (MRC) was used (Campbell et al., 2000; Craig et al., 2008). In a previous study, among women with a history of miscarriage(s), emotions and coping strategies (Ockhuijsen, van den Hoogen, Boivin, Macklon, & de Boer, 2014; Ockhuijsen, van den Hoogen, Eijkemans, et al., 2014) and the perception of the PRCI were investigated in two focus groups (Ockhuijsen, Boivin, van den Hoogen, & Macklon, 2013). The PRCI could help women to cope as they wait for a subsequent pregnancy to be confirmed as on-going, but it is unclear whether the PRCI developed or used in other clinical situations may need to be tailored to be effective in this setting (Ockhuijsen et al., 2013).

Any study of the possible value of the PRCI in recurrent miscarriage patients will require the regular assessment of emotions and reactions. The Daily Record Keeping (DRK) chart represents such an instrument as it allows the daily rating of emotions and reactions during a pregnancy. The DRK has been shown to be appropriate for monitoring in the context of waiting for the results of fertility treatments, but has not previously been used in pregnant women with a history of miscarriage(s) (Boivin & Takefman, 1995). The aim of this study was to investigate whether a Positive Reappraisal Coping Intervention (PRCI) and Daily Record Keeping (DRK) chart developed for use in assisted conception treatment are appropriate for use in pregnant women with a history of miscarriage(s).

1. Methods

1.1. Design

A convergent parallel mixed method study design was used to develop a more complete understanding of the use of the PRCI and DRK. In this design, qualitative and quantitative data are collected and analyzed simultaneously, during the same period of the research process. The two sets of results are combined into an overall interpretation. This design also offers the opportunity to check whether the results of the quantitative and qualitative analysis, consisting of detailed views from participants and scores of instruments, are consistent with each other (Creswell, 2014; Holloway & Wheeler, 2010).

1.2. Participants

Women visiting an Early Pregnancy Unit (EPU) or Recurrent Miscarriage Clinic (RMC) in a university hospital were invited by telephone to participate in this study. The EPU is run by nurses who provide support to women with a miscarriage or during their early pregnancy. The RMC offers medical investigation to couples who have had two or more miscarriages. Women who had the wish to become pregnant again and were interested to participate, received information and those providing informed consent were included. Because a debate is going on whether age and number of miscarriage influence emotions, distinctions were made in women with 1, 2, 3 or more miscarriages and women older or younger than 35 years of age (Bergner, Beyer, Klapp, & Rauchfuss, 2008; Lee & Slade, 1996; Lok & Neugebauer, 2007). Exclusion criteria were not speaking the Dutch language, pregnancy after fertility treatment and having a medical explanation for the miscarriages.

1.3. Data collection

Women who consented to participate in the study were asked to contact the researcher as soon as possible after a positive pregnancy test. The pregnant women received verbal and written information about the use of the PRCI and DRK. The women used both instruments for 3 weeks. After this period, an independent investigator (HO), at a location selected by the participant, interviewed them. The interview was semi-structured, questions were posed about the usefulness and practicality of the PRCI and DRK. Fig. 1 shows the contents of the PRCI card.

The DRK was used to rate the daily emotions during a subsequent pregnancy. The DRK contains 46 possible reactions to a waiting period, including 20 emotions, optimism and pessimism about pregnancy, 12 physical symptoms, five appraisals, and seven coping strategies. The emotional subscale is based on the theory of Lazarus and Folkman (1984). Women scored each of the 20 emotion adjectives provided on the DRK (e.g., happy, sad, anxious) according to whether, and to what extent, they had felt that way in the previous 24 hours. In the present study, only the scores on positive and negative emotions, frequency of and the effect after reading the PRCI, were reported. Quantitative data were obtained by summing the ratings of the positive and negative emotion subscales that Folkman and Lazarus (1985) proposed to be the emotional counterparts of particular appraisals of a situation. Negative emotions comprised threat (e.g., tense, worried) or harm emotions (e.g., sad, discouraged) whereas positive emotions referred to challenge (e.g., hopeful, positive) or benefit emotions (e.g., content, happy) (Folkman & Lazarus, 1985).

1.4. Data analysis

The IBM SPSS Statistics Package 20 was used to perform the statistical analysis of the DRK. Quantitative data of the DRK were obtained by calculating frequencies and means for each case.

The interviews were tape-recorded and transcribed in full. Thematic analysis was used to analyze the qualitative data (Braun & Clarke, 2006; King & Horrocks, 2010). First, descriptive codes were identified by reading through the transcripts and highlighting relevant material. The second, interpretive stage involved clustering into interpretive codes by grouping together descriptive codes that seem to share common meaning. In the third stage, a number of overarching themes are identified built upon the interpretative themes (King & Horrocks, 2010). The interviews were organized and analyzed with the software