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Research Article

Applying Mindfulness Techniques to the Management of Depressive Tendencies in Women in Taiwan in the Perinatal Period: A Qualitative Study

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SUMMARY

Purpose: Perinatal distress, especially depression, commonly occurs during pregnancy and the first year postpartum, but this medical condition are often undiagnosed and untreated. The present study explored how women with depressive symptoms during the perinatal period who had participated in a mindfulness course applied the training and perceived its effects.
Methods: This descriptive qualitative study included 16 women with probable perinatal depression who had participated in an 8-week mindfulness-based childbirth and parenting program during their pregnancy and agreed to be interviewed. One-to-one in-depth interviews were conducted and recorded following the completion of the mindfulness course, approximately 1 month after childbirth. Verbatim transcripts were analyzed using content analysis.
Results: We proposed three themes and six subthemes relating to first-time mothers' experiences during and after the group mindfulness-based intervention: learning to be aware of the body and mind (confronting awareness of physical change, managing negative feelings differently), building positive family relationships (strengthening the mother–baby bond, developing a satisfactory marital partnership), and overcoming ongoing challenges (conquering childbirth pain with confidence, accepting unexpected situations). Three main themes were generated to demonstrate how women experience the effects of mindfulness training.
Conclusions: Mindfulness-based interventions helped the participants develop insight into their mood and physical changes and accept their childbirth process. Therefore, mindfulness education programs can be incorporated into prenatal care to enhance the management of the depressive symptoms of perinatal women.

Introduction

Women are particularly susceptible to psychological distress, especially depression, during pregnancy and the postpartum period [1,2]. Depression is a leading cause of disability worldwide and is a major contributor to the overall global burden of disease [3]. Roomruangwong and Epperson [4] revealed that the overall prevalence rate of depression in Asian women was significantly higher than that of women in Western countries. Studies have estimated that 13.2%–20% of Taiwanese women experience depression during the prenatal period [5–7].

The need to address perinatal depression is clear; however, few women with mental health disorders are diagnosed in the perinatal period, and they rarely receive treatment [8]. Even when pharmacological interventions are suggested, women are reluctant to accept such treatment because of concerns for their infant's safety [9]. If perinatal depression is not adequately managed, women with strong depressive symptoms experience disturbed sleep, changes in appetite, and general unhappiness [10]. Increased marital conflict, impaired infant attachment, and infanticide have been reported

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[11–14]. Moreover, for Chinese women, cultural factors can increase the risk of depression; examples include conflicts with their mother-in-law [4] and a lack of support from the husband [15].

Because perinatal women prefer to undergo psychosocial therapy, the US Preventive Services Task Force recommended that all women at risk of depressive disorders during this period be referred to behavioral or psychotherapeutic interventions [16]. Mindfulness is defined as the process of focusing on the present in a nonjudgmental manner [17,18]. In recent years, research has demonstrated that mindfulness practice can improve a wide range of mental and physical health conditions because participants learn how to disengage from negative thinking [19–21]. The mindfulness-based childbirth and parenting (MBCP) approach is informed by mindfulness theory. This approach is specifically tailored to the needs of expectant parents and is producing promising results regarding perinatal mental health [22–24]. Because pregnancy triggers psychological distress in women with a depressive tendencies, identifying the extent to which MBCP programs can help such women is essential.

Peng et al [25] reported that 33.5% of Chinese women lived with their parents-in-law, and such women were more likely to experience postpartum depression. Recent evidence has demonstrated that women with postpartum depression symptoms may differ compared with women without such symptoms in help-seeking and preferences for treatment [26]. Although studies have indicated that mindfulness is effective for healthy Chinese perinatal women with mental health [27], few studies have focused on the effects of mindfulness on perinatal women with depressive symptoms. Additionally, in Chinese societies, a woman's life as an expectant mother is deeply influenced by traditional Chinese culture; therefore, we must understand how these women use mindfulness to adjust to postpartum life and clarify the underlying mechanisms of mindfulness in related scenarios. This study investigated how women with depressive tendencies during the perinatal period who participated in our mindfulness program applied mindfulness training and perceived its effects on their perinatal life.

Methods

Study design

A descriptive qualitative method [28] was used in this study. This method enables researchers to obtain information directly from participants, conduct inquiries with the minimum disruption to the natural context of the phenomenon being studied, and engage deeply with data in the analysis and presentation process.

Qualitative researchers in the health sciences have diverse backgrounds; thus, their approach to various phenomena is based on their preexisting knowledge and an rich, straightforward descriptions of an experience or event [29,30]. This method focuses on various phenomena instead of the theory and thus produces novel results that can provide a rich and direct description of an experience or event. The final product is a description of the experience in language that is similar to the participant's own language [31].

Setting and participants

This study is part of a large prenatal mindfulness intervention study. The 8-week MBCP program took place in Taiwan and was targeted at pregnant women who were nulliparous, were aged >20 years, were at 13–28 weeks' gestation with a singleton pregnancy, were able to understand and write Chinese, had no medical or obstetric complications, had Edinburgh Postnatal Depression Scale scores >9 (mild-to-severe depressive symptoms) [32,33], planned to give birth vaginally, and agreed to attend the MBCP program. Women were excluded if they had a diagnosed psychosis or if they or their fetuses had any medical complications.

The intervention consisted of eight 3-hour weekly sessions and was based on Bardacke's [24] original MBCP program adopted by Pan et al. [34]. This program is tailored for expectant couples, and the teaching of mindfulness is fully integrated with current knowledge on the psychological processes of pregnancy, childbirth, breastfeeding, postnatal adjustment, and the psychological needs of newborns. This knowledge is combined with the mindful attitudes of nonstriving, kindness and compassion, beginner's mind, patience, trust, nonjudging, acknowledging or accepting, and letting go. In addition, partner support, a self-regulation tool for coping with labor pain, and awareness skills to reduce or prevent stress, anxiety, and depression symptoms in perinatal life are included [23,35].

This mindfulness program was taught by the first author, and it included learning about mindfulness meditation techniques for the perinatal period. The learning content included formal and informal training. The course was run with 8–12 participants and their partners in a group. The participants were required to listen to audio recordings of formal and informal mindfulness practices that they could perform at home for 30 minutes six times a week and to additionally complete a homework assignment after the practice. We allowed the participants the necessary time to practice mindfulness outside the class with the goal and expectation that they would undertake this additional practice.

In this study, 16 participants from three groups within the MBCP program who agreed to attend the interviews and who gave birth in 2020 and 2021 were included. The interviews were held approximately 1 month after childbirth.

Ethical considerations

This study was approved by the research hospital's ethics committee (Reference No. 108-E–14). Before starting each interview, the researcher informed the participant about the purpose of the study, the interview process, and plans for using the collected data. They were provided with information relating to this study in written and verbal form. All the participants were informed of the voluntary nature of their participation. Their interview records were kept confidential. Furthermore, the participants were informed that they could withdraw from this study at any time without affecting their rights to health care. All identifying information was removed from the interview records and the participants' personal data; only codes were used in the final analysis.

Data collection

The interviews were held either in a postpartum nursing center or at the participant's home. An interview guide was used, and questions such as “Please describe your experience of participating in the mindfulness program,” “Please share how you have applied the mindfulness program to perinatal life,” and “Tell me how you have adapted to your current life” were included. To elicit the most comprehensive descriptions, the participants were asked to answer these questions and were then prompted to clarify or expand on their answers with follow-up prompts, such as “What do you mean … ?” Upon completion of the interviews, the participants completed a short demographic survey questionnaire.

Data analysis

Braun and Clarke's method was used to conduct a thematic analysis of the data. This is a qualitative method that allows for the

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identification, analysis, organization, and report of patterns or themes revealed within the data [36]. Two female researchers read the transcripts and onsite notes of each participant's interview several times to immerse themselves in the data and fully understand the participant's responses and experience. Subsequently, they discussed and compared the coding of each transcript until a consensus on the codes and coding definitions was reached. The themes were discussed and finalized with the consensus of all the authors to ensure that the units of code identified were related to the themes and that the finalized themes truly represented the entire dataset [37].

Trustworthiness of the study

Several principles guided the strategies that were used to maintain the reliability of this study, namely credibility, transferability, dependability, and confirmability. This was achieved through (1) an intensive interview that lasted 50–90 min, (2) continuous observation and data analysis, and (3) data generated through recordings and verbatim records of the interviews. Credibility was supported through meetings between research teams and with colleagues and participants to discuss research findings. To facilitate transferability, diversity with regard to age, educational level, and the method of childbirth used was valuable. The interview guide was developed from a review of the literature and input from mindfulness experts. In addition, multiple collaborative sessions were held by the research team to ensure the accuracy of the data collection and analytical procedures and increase the dependability of the data. Furthermore, two interviewees were invited back to conduct further checks and describe their experiences as accurately as possible; hence, in this manner, we could establish research confirmability [38].

Results

The ages of the 16 women ranged from 23 to 38 years. Most held a bachelor's degree or above (87.5%) and were married (93.75%); 87.5% were employed during their pregnancy. Fifteen participants experienced a normal vaginal birth, and one underwent a cesarean section because the baby was in a breech position (Table 1).

At the time of their interview, all participants reported that they still practiced formal and/or informal mindfulness in their daily lives. The data were organized into three major themes to demonstrate how women experience the effects of mindfulness training: (1) learning to be aware of the body and mind, (2) building positive family relationships, and (3) overcoming ongoing challenges. Each theme contained two subthemes.

Theme 1: Learning to be aware of the body and mind

All the women described being aware of their physical and mental changes during the mindfulness practice after their participation in the mindfulness program.

Confronting awareness of physical change

Participants reported that the practice of mindful breathing and the body scan technique helped them focus on their body more and relax their muscles, resulting in fewer backaches and headaches:

> *"I got sore shoulders easily and suffered from headaches for many years … Since learning these techniques, I am able to focus on the moment and on my breathing. I noticed that I didn't have any headaches before or after childbirth." (p. 13)*

Participants also described feeling uncomfortable and tired in their pregnancy, but mindfulness practices improved the quality of their sleep, improved their circulation, and increased their energy levels. One participant said,

> *"I found the body scan pretty useful. At the very beginning of my pregnancy, I often found it difficult to fall asleep. I would listen to the 'body scan' [tape] before bedtime. I started to sleep better and felt energetic the next day." (p. 5)*

Managing negative feelings differently

Overall, participants reported that they felt calmer, less anxious, and less as though they were on "autopilot," meaning that their brains wandered less after practice. One participant explained how the class and the practice helped her become aware of sensations of inner peace, making her feel calmer and allowing her to think more clearly:

> "*I think mindfulness calms my emotions and changes my thinking. I used to worry about a lot of things, such as the fear of a difficult birth and having a cesarean. But the mindfulness practice and childbirth knowledge in this course helped me stop worrying because what I see, think, or feel may not be the actual situation, so I don't need to worry about it, and I have slowly begun to believe that I am capable of giving birth." (p. 8)*

Table 1 *Demographic Characteristics of Participants (n = 16).*

No	Age (years)	Education	Employment status	Mode of birth	Course attendance (no. of times)	Mindfulness training status	EPDS (Pretest)	EPDS (posttest)
1	36	University	Yes	Vaginal birth	8	Informal training	12	3
2	29	University	Yes	Vaginal birth	7	Informal training	10	6
3	23	University	No	Vaginal birth	6	Both, formal training (60 minutes)	19	19
4	32	Graduate school	Yes	Vaginal birth	8	Both, formal training (30 minutes)	15	16
5	36	Graduate school	Yes	Vaginal birth	6	Informal training	11	11
6	32	University	Yes	Vaginal birth	8	Informal training	10	7
7	28	Junior college	Yes	Vaginal birth	6	Informal training	15	12
8	34	University	Yes	Vaginal birth	7	Informal training	14	6
9	27	University	No	Cesarean section	8	Both, formal training (15 minutes)	12	6
10	33	Graduate school	Yes	Vaginal birth	8	Informal training	18	3
11	33	University	Yes	Vaginal birth	8	Informal training	11	7
12	32	University	Yes	Vaginal birth	8	Informal training	15	15
13	33	University	Yes	Vaginal birth	8	Informal training	12	9
14	38	Junior college	Yes	Vaginal birth	6	Informal training	11	8
15	32	Graduate school	Yes	Vaginal birth	7	Both, formal training (20 minutes)	16	11
16	37	Junior college	No	Vaginal birth	8	Both, formal training (30 minutes)	13	9

Note. EPDS = Edinburgh Postnatal Depression Scale.

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Disappointment often occurs in life. Participants discovered that mindfulness techniques taught them to recognize their feelings and stop for a moment. They tried to consider life events from a different perspective, which helped them to avoid feeling that they were letting themselves down:

> *"I was told by the doctor that I had to have a cesarean because my baby was in a breech position. This was different from my original plan, but it happened … I was very worried at the time. Then I took a deep breath and stayed focused on the present moment. I was able to think that this was just my baby's choice. I told myself that it was no big deal. And that's been really helpful for me." (p. 9)*

Theme 2: Building positive family relationships

The women incorporated mindful techniques into relationships with their baby and husband. They exercised nonjudgment and ever-unfolding compassion for each and every moment, which enhanced their relationship.

Strengthening the mother–baby bond

This program helped the participants feel and interact with their baby during pregnancy. Participants reported that they used fetal movements as a reminder of mindfulness and that these movements elicited positive feelings. This maternal–fetal interaction continued until birth. Most participants experienced joy during the prenatal period:

> *"I felt my baby and wondered what my baby was doing. This also reminded me to be mindful with my baby. It was really fun. Sometimes she (my fetus) was very calm; sometimes she was making trouble and moving a lot. I could always feel her, and it was interesting."(p. 7)*

Several months after participating in the class, several women mentioned that practicing mindfulness became easier when they let the babies be their teachers. They learned to focus completely on the baby to view their present-moment parenting experience with their baby. One participant used this technique to bond with her baby despite the baby's gender not meeting the expectations of her mother-in-law:

> *"I could feel my mother-in-law's disappointment, but I was engrossed in being with her. I really felt that she was my angel … I think she understands me [looking at her baby]. She probably knows what I want to do. She keeps looking at me. People say you shouldn't praise this behavior in front of the baby, but my baby doesn't cry when she's hungry. She just gently pats me. Really! My husband also notices it. She pats me on my face like this [demonstrates the movement with her hands]." (p. 11)*

Developing a satisfactory marital partnership

All the participants mentioned that when they deliberately practiced maintaining awareness of their attitudes, they began to accept their own limitations and those of their partners. They also realized their husbands had changed. These husbands understood more about their wives' changes during pregnancy and birth and their attentiveness toward their wives increased after participating in the program. One participant said,

> *"I found that it was good to participate in this program with my husband. In the past, he couldn't easily sense when I was experiencing discomfort. However, I think he has become more considerate after attending this program … he has started carrying things, minding my walking pace, and helping me focus on the road. He even joins me in practicing mindful breathing in the evenings." (p. 1)*

Participants believed that techniques such as loving kindness and acceptance were helpful to their marital relationship. It made them more tolerant of each other and therefore reduced friction at home. One participant, who was shy but anxious to express herself, opined,

> *"Speaking in class put pressure on me, but I had the motivation to continue because he [my husband] accompanied me to every class. I learned to look at myself with acceptance and found that speaking in class was not very hard [smile] … I think it was very important to have him here, he is my greatest support." (p. 12)*

Theme 3: Overcoming ongoing challenges

The majority of the participating women thought that the program helped them to cope with life's challenges. In addition to facing the pain of childbirth, they faced other major changes in life, such as caring for the baby, their husband's sudden unemployment, and returning to work. This theme reflected the women's perception of the training as effective because it enabled them to develop their strategies for dealing with threatening situations.

Conquering childbirth pain with confidence

Many participants reported a change in attitude with every session they attended. They gradually felt more confident about their pregnancy and birth. When they went into labor, mindful breathing allowed them to experience the physical sensations as pain arose, peaked, and disappeared. Using meditation to stay focused during childbirth enabled them to achieve successful labor outcomes:

> *"Before giving birth, I was really afraid of birth pain. I heard that it was really scary. After taking the mindfulness class, I learned not to worry about things that had not happened yet. I was able to face the birth and used breathing when each new contraction came … I felt very happy that I could get through the labor on my own." (p. 2)*

Three of the participants did not plan to use epidural analgesia for pain relief in labor but later chose to do so. They felt well informed of their choices, and thus, they were able to make the decision with confidence:

> *"I found that the childbirth pain was more painful than when we were holding the ice with our hands in mindful class. I really can't describe it. Later, I chose pain relief to help me manage the pain. Although this was different from what I had thought at the beginning, I don't judge myself. That's what my body needed at the time."(p. 12)*

Accepting unexpected situations

Having a child results in a number of unexpected life changes, such as less sleep, no alone time, and being constantly busy. Participants noted that mindfulness helped them take a step back from the situation and take a more objective view without making emotional judgments about the situation:

> *"Because we are both new parents, we sometimes forget to prepare extra clothes for our baby when we go out. One time he had a bowel movement, and we had to go home immediately. Mindfulness helps*

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us to accept what's happening right now, so we don't blame each other for not remembering." (p. 2).

Two participants mentioned their husbands losing their jobs because of the COVID-19 pandemic. Instead of reacting immediately and feeling depressed, they observed and actively noticed what was happening around them and then looked at the event from a different perspective. One participant commented,

"My husband was unemployed. Although I was mentally prepared before, I was worried at the time. I try to focus my attention on what is happening in the present moment, and I find that he has more time to be with us … It reminds me that we shouldn't focus on the negative things in life. So, I'm not as anxious as before. I will face the future with courage." (p. 10)

Discussion

This qualitative study adds to the literature supporting the effectiveness of mindfulness learned in MBCP and specifically highlights the benefits of mindfulness techniques to these women to manage their stress.

The first theme of our study "learning to be aware of the body and mind" was similar to previous case–control studies, indicating that mindfulness interventions can reduce perinatal depression, anxiety, and stress [23,39]. Women face many changes after childbirth and must adjust to new difficulties and unexpected situations. This program can help women apply mindfulness techniques to increase their situational awareness and promote calmness and relaxation. The findings are congruent with those of quantitative studies, suggesting that higher levels of mindfulness are aid psychological adjustments and help individuals accept challenges [40]. By contrast, if they are unable to cope with disappointment and the homeostasis is disrupted, physical and mental functions may be reduced [41,42].

The women in our study considered that their positive family relationships were associated with our mindfulness interventions. The mothers became aware of the value of their attachment to their babies and felt happy that they and their babies could respond to each other. This is consistent with research revealing that mindfulness interventions are essential for improving parents' ability to be responsive, warm, and calm, helping them to develop a more attuned mother–infant interaction [43]. These programs also give women the opportunity to strengthen their relationships with their partners, with mindfulness techniques being used to manage difficult emotions and create greater flexibility in dealing with stressful situations [44,45].

Mindfulness childbirth classes for pregnant women help them prepare for the labor and birth and increase the levels of maternal attachment and competence in motherhood [46]. The results from this study reveal that the MBCP curriculum helps women strengthen their inner processes of attention, awareness, nonreaction, and nonjudgment toward their children through their daily parenting interactions. In addition to improving the mother's mental health, mindfulness also helps the mother to be competent in her parenting role.

Notably, through qualitative content analysis, we revealed that some participants used mindfulness practices to address the challenge of conflict with their elders during the perinatal period. Traditionally, after a Chinese woman marries, she becomes part of the husband's family and lives with them. Therefore, she cannot express herself as freely as when living with her own family, which may result in her suppressing her emotional expression [47]. Furthermore, discrimination against baby girls and a lack of support from husbands are problems that still exist in Chinese society and can aggravate the symptoms of maternal depression, particularly when new mothers live with their parents-in-law [48]. Therefore, future mindfulness interventions should incorporate cultural factors, share the perinatal experiences of other women in the course, and make adjustments that cater specifically to the needs of Taiwanese women.

Three themes from this study can help women manage depression clinically. First, awareness of the body and mind allows women to be open to all experiences and live in the moment, even in unexpected or unwelcome situations [44]. Second, MBCP can improve the parent–child relationship if the parent adopts a mindful parenting attitude, including listening attentively, accepting oneself and the child nonjudgmentally, being emotionally aware of oneself and the child, adopting self-regulation, and having compassion for oneself and the child [44]. Third, the women perceived the core mindfulness practices, such as mindful breathing, the body scan, and mindful walking, as helpful. These techniques empower women both physically and emotionally during childbirth and in the postpartum period [49].

Despite the adequate sample size and data saturation, the present study has several limitations. All participants were volunteers and members of three MBCP program groups; furthermore, they were homogenous in terms of sociodemographic characteristics and geographic location. Another limitation is that the participants of this study were women with depressive tendencies; as such, the results cannot be generalized to all individuals with depression. Furthermore, most of the participants were accompanied by a male partner, although the perspectives of the partners were not explored. Future qualitative research may explore the experience of the male partners participating in the program. In addition, women with positive experiences might be more willing to share their experiences than those with negative experiences, which could affect the results.

Conclusion

This study was conducted using in-depth interviews to investigate the experience of women with perinatal depression tendencies during and after a mindfulness program. The study revealed that MBCP could be a novel means to help women raise awareness of issues that affect them, strengthen relationships with others, and overcome challenges, thus enhancing depressive symptom management. This mindfulness program also provides another option for childbirth educators to help perinatal women improve their mental health.

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Conflict of interest

The authors have no conflicts of interest to disclose.

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