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Changes in maternal self-efficacy, postnatal depression symptoms and social support among Chinese primiparous women during the initial postpartum period: A longitudinal study

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ABSTRACT

Background: There are many parenting problems during infancy for Chinese primiparous women. As an important determinant of good parenting, maternal self-efficacy (MSE) should be paid more attention by researchers. At present, the limitations of previous research examining MSE during infancy are that most studies were conducted with a homogeneous sample and there were few studies with Chinese women. Secondly, the trajectory of change in MSE, postnatal depression symptoms and social support for Chinese primiparous women was not clear during the initial postpartum period in earlier studies.
Objectives: This study aimed to describe changes in MSE, postnatal depression symptoms and social support among Chinese primiparous women in the first three months postnatally.
Design: A quantitative longitudinal study using questionnaires was conducted.
Setting: Obstetric wards at three hospitals in Xiamen City, South-East China.
Participants: In total, 420 Chinese primiparous women were recruited.
Methods: Initial baseline questionnaires to measure socio-demographic and clinical characteristics at three days postnatally were distributed to participants face-to-face by the researcher on the postnatal ward. Follow-up questionnaires at six and 12 weeks postnatally were sent via e-mail by the researcher to participants, including the Self-efficacy in Infant Care Scale (SICS), the Edinburgh Postnatal Depression Scale (EPDS) and the Postpartum Social Support Scale (PSSS) to measure MSE, postnatal depression symptoms and social support, respectively. These were returned by participants via e-mail. Quantitative data were analysed using SPSS.
Results: The mean MSE score at six weeks postnatally was 74.92 (SD = 11.05), and increased to 77.78 (SD = 11.13) at 12 weeks postnatally. The mean social support scores at six and 12 weeks postnatally were 40.99 (SD = 9.31) and 43.00 (SD = 9.55). The mean EPDS scores decreased from 9.09 (SD = 4.33) at six weeks postnatally to 8.63 (SD = 4.40) at 12 weeks postnatally; the proportion of women with an EPDS score of ten or more and 13 or more at the two time points declined from 47.4% to 38.3%, and from 21.4% to 18.2%, respectively.
Conclusions: In this study, Chinese primiparous women had a moderate level of MSE and received a moderate level of social support at six and 12 weeks postnatally, and a higher proportion of Chinese women had postnatal depression symptoms than did women in Western countries. From six to 12 weeks postnatally, the mean MSE scores and social support scores had a statistically significant increase; the mean EPDS scores had a statistically significant decrease.

Introduction

In China, more than half of childbearing women are primiparous due to the enforcement of the one-child policy during the last 30 years. Because of lack of parenting experience, many first-time mothers face challenges when providing good parenting for infants and find it stressful and difficult when completing parenting tasks (Gao et al., 2010). Researchers have found that parenting during infancy was highly problematic for Chinese primiparous women, including negative mother—infant interactions and unsuccessful parenting tasks (Pan and Bao, 2006). As

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a result of these early issues in infant care, children may suffer from intellectual, emotional and behavioural problems, negatively impacting on their future wellbeing (Çalısır and Karaçam, 2011).

Maternal self-efficacy (MSE) is defined as mothers' belief of their abilities about the organization and execution of tasks dealing with parenting children (Montigny and Lacharite, 2005). Evidence from various studies emphasizes that MSE is not only an important predictor of parenting quality, but also associated with various outcomes of maternal and child health (Haslam et al., 2006; Goto et al., 2010). In consideration of the important effects of MSE, an increasing number of researchers have focused on this domain (Kohlhoff and Barnett, 2013; Shorey et al., 2014, 2015). For instance, in a longitudinal quantitative study, researchers (Porter and Hsu, 2003) found that there was a statistically significant increase in the MSE scores from one month to three months postnatally for American women. Another study using a repeated-measures design to assess MSE at four, eight, 12 and 16 weeks postnatally in the USA, showed that mothers' reports of MSE increased linearly during the first three months, and then remained stable from three months to four months (Hudson et al., 2001).

A condition that impacts on a mother's ability to function postnatally and provide good parenting is postnatal depression (PND), also known as postpartum depression (PPD). This has been defined by Cox et al. (1993) and is recognized as a serious public health problem across cultures owing to its high incidence and several detrimental consequences for the mother, infant and family as a whole (Daley et al., 2009). In the Chinese context, Zhao (2012) reported PND rates of between 15 and 30% in Chinese women following childbirth, this was based on data collected between 2000 and 2012. Evidence indicates that PND has been a significant factor affecting MSE. For instance, studies undertaken in different countries by Gao et al. (2012) and Shorey et al. (2015), found that there was a negative association between PND and MSE. Moreover, the results of multivariate regression analysis identified PND as an important influencing factor contributing to MSE both by the current authors (Zheng et al., 2018) and other researchers (Zang and Shen, 2010; Kohlhoff and Barnett, 2013).

The other factor impacting on women's early ability to parent is that of social support. This has been described by House (1981) as "a flow of emotional concern, instrumental aid, information, and/or appraisal between people" (p.26)". The studies by Zang and Shen (2010), Ngai et al. (2011), Shorey et al. (2014) and Gao et al. (2014) conducted in different countries confirmed the positive association between social support and MSE. Furthermore, the research results of multiple regression analysis (Shorey et al., 2015; Zheng et al., 2018) showed that social support was the most important influencing factor for MSE. Arising from the influence of Confucianism values in Chinese culture, a baby's birth was an important matter for the whole family, and the new mother was supported by her family members in terms of childcare (Gao et al., 2012). Especially, during the period of "Doing the month", the mother was usually accompanied by her mother-in-law or mother to help her to have a good rest (Zheng et al., 2018).

A review of the literature revealed that the majority of previous research was conducted in Western countries; and few studies focused on Chinese women (Zheng et al., 2015). Three studies conducted in non-Western Countries such as in Thailand (Prasopkittikun et al., 2006) and Singapore (Shorey et al., 2014, 2015), highlighted the importance of assessing MSE routinely during the postnatal period, especially in initial motherhood. However, these studies lacked the consideration of the effect of Asian culture on MSE. Furthermore, the trajectory of change in MSE and its important influencing factors such as postnatal depression symptoms and social support was not clear for Chinese primiparous women during the initial postpartum period (Zheng et al., 2015). In consideration of the discrepancy in social and cultural background, the research findings of Western countries could not be extrapolated to Chinese primiparous women. Therefore, this quantitative longitudinal study was conducted to explore the change in MSE, postnatal depression symptoms and perceived social support among Chinese primiparous women during the first three months postnatally.

Method

Design

The quantitative longitudinal study was conducted to describe the trajectory of change in MSE, postnatal depression symptoms and social support in Chinese primiparous women in the first three months postnatally.

Setting and recruitment

From June to July 2013, recruitment was taken placed in the obstetric wards of three hospitals in Xiamen City of China, where 90—100 beds and around 2000 annual live births were recorded in each study hospital. After gaining all the study permission, an introductory demo was presented to nurses in the obstetric wards of three hospitals, and study posters and leaflets were offered to inform all women and their family members once they admitted to the three hospitals. Women were eligible for the study if they were in the postpartum period, were aged 18 years or above, Chinese in Xiamen City, able to read and write in Mandarin, first-time mother with a healthy full-term live infant, and women and their baby did not have a severe illness.

Eligible women were approached by the researcher as early as possible after childbirth to enable them to have enough time (at least one day) to read the information sheet and think about participation before providing their written consent to take part. When the researcher was not in one particular study site, other nurses helped the researcher by giving leaflets and information sheets to the potential participants, and the researcher visited these women to obtain their consent on the next day. Prior to data collection, written informed consents were gained from all participants by the researcher.

Data collection

Instruments and variables

Socio-demographic and clinical data were collected on both mothers and their infants using a baseline questionnaire designed by the researcher, including maternal age, occupation, education level, marital status, family income, mode of childbirth, and baby gender.

The Self-efficacy in Infant Care Scale (SICS) (Prasopkittikun and Tilokskulchai, 2010) was used to measure MSE and the scale contains 46 items and four dimensions, including developmental promotion of 15 items, general health care of 15 items, safety of six items, and diet of eight items. There are the other two items about a women's self-assessment on how good a mother she is and how well she seek the parenting knowledge. Each item is rated from 0 to 100 points where the higher the score the higher the self-efficacy. Reported internal consistency was 0.96 of the SICS and ranged from 0.86 to 0.96 for its four dimensions. The test–retest reliability coefficient for the total scale was 0.93 (Prasopkittikun and Tilokskulchai, 2010). The internal consistency of Chinese version SICS was 0.95 and ranged from 0.80 to 0.93 for the four dimensions. The Content Validity Index (CVI) of Chinese version SICS was 0.98 (Zang and Shen, 2010).

The Edinburgh Postnatal Depression Scale (EPDS) (Cox et al., 1987) was used to measure postpartum depression symptoms of women, which is a 10 items, self-report instrument. Each item is rated on four-point range from 0 to 3 (0 indicates better health). EPDS is extensively used to identify postpartum depression symptoms in various countries (Hewitt et al., 2009). The internal consistency of Chinese version EPDS was 0.87 and the concurrent validity with the Beck Depression Inventory was 0.79. According to recommendation of Chinese researcher (Wang et al., 2009), a total EPDS score of ten and 13 were used as the threshold scores