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Predictors of breast feeding self-efficacy in the immediate postpartum period: A cross-sectional study

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ABSTRACT

Objective: to examine breast feeding self-efficacy and identify its predictors among mainland Chinese mothers in the early postpartum period.
Design and setting: a cross-sectional descriptive questionnaire survey was conducted in a regional teaching hospital with childbirth rate over 3000 per year at Guangzhou, China from April 1 to July 14, 2014.
Participants: a total of 571 Chinese mothers who were within 72–96 hours post partum were recruited consecutively to the study.
Measurements: data were collected by the Chinese version of the Breastfeeding Self-efficacy Scale-Short Form (BSES-SF), the Network Support for Breastfeeding Scale (NSBS) and a socio-demographic data sheet.
Findings: a total of 640 eligible women was approached and 571 mothers completed the study with the response rate of 89%. Mothers reported moderate level of breast feeding self-efficacy in the immediate postpartum period. The best-fit regression analysis revealed six variables that explained 43.9% of the variance in breast feeding self-efficacy in the immediate postpartum period. They were intention of breast feeding, support from husband, support from nurses/midwives, attending antenatal breast feeding classes, time from childbirth to initiate breast feeding and previous breast feeding experience.
Conclusions and implications for practice: this study found six predictors of breast feeding self-efficacy in the immediate postpartum period. In order to increase maternal breast feeding self-efficacy level, a more women-centred approach is recommended. Mothers and fathers should be facilitated to attend antenatal classes on breast feeding. New mother' husband could be encouraged in supporting breast feeding. Nurses and midwives could encourage new mothers to initiate breast feeding as soon as possible. Further work to promote early mother–infant contact post birth, such as via skin to skin contact should also be facilitated where possible.

Introduction

Breast feeding is one of the highest impact interventions providing benefits for children, women and society (Hansen, 2016). It reduces infant morbidity and mortality, increases in intelligence and remains a basis for child survival strategies. Breast feeding is also associated with improved maternal post partum recovery and reduced incidence of breast and ovarian cancers and diabetes (Rollins et al., 2016; Victora et al., 2016). It also contributes to equity by giving all children a nutritional head start for success in life (Hansen, 2016).

The World Health Organization (WHO) recommended that all infants should be exclusively breast fed for the first six months post partum and thereafter breast feeding with complementary foods for up to two years of age or longer (World Health Organization (WHO), 2011). However, among all the newborns globally, there are only fewer than half being exclusively breast fed for the

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first six months post partum (World Health Organization (WHO), 2012) and the exclusive breast feeding rate was only 15.8% for infants under six months old in mainland China (Chinese Ministry of Health, 2009).

The sustainable breast feeding has been found to be associated with breast feeding self-efficacy which is amendable to change by healthcare professionals (Meedya et al., 2010; de Jager et al., 2013). On the basis of Bandura's (1977) social cognitive theory, Dennis (1999) has proposed the concept of breast feeding self-efficacy. It refers to mothers' perceived ability or confidence to breast feed their new infant. Breast feeding self-efficacy determines how much effort mothers will expend on breast feeding, how long they will persevere when confronting obstacles, and how resilient they will be in the face of adverse situations (Bandura, 1977; Dennis, 1999). Evidence has demonstrated that mothers with higher level of breast feeding self-efficacy were generally more successful in initiating and continuing breast feeding (Ip et al., 2012; de Jager et al., 2014). They tended to think and react positively as well as persisted longer when breast feeding difficulties appeared.

Breast feeding self-efficacy is found to be related to social support (McQueen et al., 2011; Mannion et al., 2013; Zhu et al., 2014). Gao et al. (2015) asserted that the early postpartum period in the hospital was a significant time for health care workers to give professional support to mothers for establishing exclusive breast feeding. Bandura (1977) suggested that social support provided various sources of efficacy information including vicarious experience (role models) and verbal persuasion (encouragement). Women with higher perceived social support were found to report higher level of breast feeding self-efficacy (McQueen et al., 2011; Mannion et al., 2013). In fact, a previous study has reported that early and successful initiation of breast feeding and exclusive breast feeding during mothers' hospital stay were associated with higher level of breast feeding self-efficacy (Koskinen et al., 2014).

Breast feeding self-efficacy during the immediate postpartum period could be a predictor of mothers' success in breast feeding. It can also serve as an indicator for those who require additional intervention to ensure continuation of breast feeding (Ip et al., 2012; Henshaw et al., 2015). However, no study has been conducted to investigate the level of breast feeding self-efficacy in Chinese mothers and factors that predicted their breast feeding self-efficacy in the immediate postpartum period.

Methods

Aim/objectives

The aim of this study was to examine breast feeding self-efficacy and identify its predictors among Chinese mothers in the immediate postpartum period. The objectives were to:

(1) examine the level of breast feeding self-efficacy in the immediate postpartum period;
(2) examine the differences in breast feeding self-efficacy among different socio-demographic subgroups in the immediate postpartum period;
(3) examine the relationships between breast feeding self-efficacy and social support in the immediate postpartum period;
(4) identify the predictors of breast feeding self-efficacy in the immediate postpartum period.

Design

A cross-sectional descriptive study was undertaken.

Settings and participants

In mainland China, more than 96% of childbearing women gave birth in the hospitals in general (Ministry of Health, People''s Republic of China, 2011). Postnatal care is provided by obstetric nurses and a few midwives (Gao et al., 2013). Mother-infant skin-to-skin contact is implemented after infant assessments, bath and footprints for birth certificates for mothers with vaginal birth but not for caesarean women. After childbirth, they generally stay in the hospital from two to four days. The nurse and midwife will help and encourage the mothers to breast feed their infants.

Antenatal classes have been part of routine antenatal care in hospitals in mainland China since 1980s. It is a free service for all the pregnant women. The education topics of the antenatal classes mainly focus on labour and breast feeding.

This study was conducted in Guangzhou from April 1 to July 14, 2014. Guangzhou is a sub-provincial city located in southeastern China. It is the capital of Guangdong Province and has a population of approximately 16 million. The participants were recruited from one of the regional teaching hospitals with childbirth rate over 3000 per year. The hospital has been designated as Baby-Friendly Hospital since 1993 based on the WHO Baby-Friendly Hospital Initiative (BFHI).

The participants were recruited from the postnatal wards of the study hospital. Eligible mothers were 18 years old or above, able to read and understand Mandarin-Chinese, had decided on or had initiated breast feeding at the time of data collection (within three to four days post-delivery), and had given birth to a singleton, full-term (gestation >37 weeks) healthy infant. Mothers were excluded from participation if they had (a) serious medical or obstetric illness, (b) multiple deliveries (twins, triplets), or (c) infants being admitted to the special care nursery at the time of data collection.

Measurements

The Chinese version of Breastfeeding Self-efficacy Scale-Short Form (BSES-SF) (Ip et al., 2012) was used to measure mothers' breast feeding self-efficacy. It is a 14-item, unidimensional self-report scale. The original BSES-SF was translated into Chinese and validated in Chinese mothers (Ip et al., 2012). All items are positively worded and rated on a five-point Likert scale from 1 = *not at all confident* to 5 = *always confident*. Total scores of BSES-SF ranged from 14 to 70 with higher scores indicating higher level of breastfeeding self-efficacy. The reported Cronbach's alpha coefficient of the Chinese version of BSES-SF was 0.95 and construct confirmatory factor analysis has confirmed its construct validity (Ip et al., 2012). The Cronbach's alpha value of the Chinese version of BSES-SF was 0.94 in the present study.

Social support was measured by Network Support for Breastfeeding Scale (NSBS) (McCarter-Spaulding and Dennis, 2010). The NSBS has two sub-scales. One measures the breast feeding support from the close network and the other measures the support from the extended network. Prior to the use of the NSBS in the present study, the investigators translated the NSBS into Chinese following the principles of back-translation (Brislin, 1970). It was then reviewed for content validity by an expert panel. The experts recommended that only close network subscale should be used in this study as family members are the main care-givers of Chinese new mothers (Lu et al., 2011). The experts also suggested that nurse/midwife and obstetrician's support to mothers should be measured.

Thus, according to the revised NSBS, participants were asked to identify five most important people in their life in the present study. For each of the five most important people plus nurse/midwife and obstetrician (a total of seven), five questions, such as