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Emotional well-being of Vietnamese immigrant women during the transition to motherhood: A descriptive cohort study

ABSTRACT

This study investigated the health and well-being of Vietnamese foreign brides recently immigrated to southern Taiwan. Forty-four participants were recruited during pregnancy and 23 were followed-up at six weeks postpartum. Standardized measures completed during face-to-face interviews revealed high levels of life stress, poor general health, low social support and difficulty caring for their infant amongst participants. Estimated prevalence of probable antenatal depression was 32%, and 26% for probable postpartum depression using Edinburgh Postnatal Depression Scale scores of ≥ 13 . Probable antenatal depression predicted postnatal depression. Pregnant immigrant women experienced a high level of difficult life circumstances and were significantly more likely to develop depressive symptoms after birth ($r = 0.42 - 0.73, p < 0.05$). Immigrant women with low social support during pregnancy were also more likely to report higher EPDS scores than well-supported women ($r = -0.45, p < 0.05$). Given these results, prevention and intervention activities are needed to promote maternal psychological well-being in disadvantaged women, especially immigrant brides.

KEYWORDS: Immigrant women, transition to motherhood, antenatal depression, postnatal depression, difficult life circumstances, social support

INTRODUCTION

There has been a significant increase in the number of immigrant females from poor Southeast Asian countries seeking to marry Taiwanese nationals (Wang, 2005). There are complex reasons for this trend including a disproportion of males in Taiwanese society compared to females (sex ratio rose from 1.07 in 1976 to 1.10 in 2010), traditional views of marriage held by Taiwanese men (Tsay, 2004), and the emancipation of Taiwanese women resulting in delayed marriage and motherhood (Wang, 2005). The average age at marriage for Taiwanese women was 20.8 in 1943 rising to 30.8 years in 2012 (MOI Taiwan, 2013). The arrival of Vietnamese women for the purpose of marriage has also been influenced by liberal immigration policies and aspirations of immigrants (Tsay, 2004; Wang, 2005).

According to government statistics, foreign brides accounted for 18.8 percent of registered marriages in 2009, up from 7.2 percent in 1998. In 2009, 1 out of 5 marriages in Taiwan was between a Taiwanese national and a foreign bride. Within this migration pattern, Vietnamese brides (69%) constitute the largest group of all foreign brides (MOI, Taiwan, 2013). Although these women may independently apply to immigrate, such arrangements are often managed by matchmaking agencies (Tsay 2004) These Vietnamese brides are usually young (around 60 percent are aged less than 24 years), poorly educated (75 percent had completed junior high school or less) and come from poor economic backgrounds (Ko & Chang, 2005).

Generally, the very experience of migration can expose individuals to increased risk of psychosocial, behavioral, and mental health problems (Cheung & Pan, 2012). Of particular importance is vulnerability to emotional distress (such as stress, depression, and anxiety) if individuals are unable to cope with the immensity, or speed of change in their new cultural context (Grewal et al., 2005). Immigrant women of childbearing age may be at risk for mental health problems. In particular, foreign brides who marry Taiwanese men may experience stress because they have less time to adjust to their new living environment before commencing a family (Wang & Chang, 2002). Foreign brides

often become pregnant within six months of arriving in Taiwan compared with Taiwanese women who become pregnant within 2.5 years after marriage (Lin, 2005). Furthermore, foreign brides do not tend to have knowledge of family planning, nor do they know how to access or effectively use appropriate medical services in Taiwan (Wu & Tang, 2005).

Childbearing can lead to significant changes in every aspect of a woman's life. During pregnancy and following birth, women need to cope with dramatic physiological changes, prepare for motherhood, learn a new social role, and navigate changes in the marital relationship (Lee & Chung, 2007). The experience of pregnancy and childbirth for recently immigrated women is likely to be challenging and can include concerns related to finances, social isolation from mainstream society and family of origin, and unfamiliarity with medical services and practices (Zelkowitz et al., 2004).

Depression in women of childbearing years is increasingly recognized as a public health concern. Estimates of postnatal depression (PND) range from 2% to over 50%, depending on the population, sampling procedures, diagnostic criteria, and time of assessment (Franklin, 2009). Risk factors for depression can include a combination of biological and obstetric factors (for example, unplanned pregnancy, gender of baby), psychological factors (such as low self-esteem, emotional distress, and anxiety), and social-demographic factors (such as stressful life events, childcare skills, social support, marital relationship, socioeconomic status, and immigration) (Klainin & Arthur, 2009; Roomruangwong & Epperson, 2011). It is particularly important to screen women at risk of developing antenatal and postnatal depression because symptoms affect not only the mother but her child and partner as well (Pihet et al., 2007).

Taiwanese men who marry Southeast Asian women tend to live in rural areas and predominantly work in manual labor, farming, or fishing industries. These men tend to be socially, economically, and geographically disadvantaged (Hsia, 2004). Women immigrating to Taiwan for marriage are therefore also likely to share their partners' disadvantage, and live in rural areas which have fewer health care services than urban areas (National Statistics Taiwan, 2007). They also face more personal, psychological, social and medical challenges when they become pregnant than other women (Huang &

Mathers, 2008). Despite the obvious difficulties confronting Vietnamese immigrant women, relatively little research has been conducted, especially with those living in rural areas. Therefore, this study examined the health and well-being of a cohort of Vietnamese brides recently immigrated to southern Taiwan.

METHODS

Design

A descriptive cohort study was used.

Setting

Women were recruited from antenatal clinics at four local community hospitals in Pingtung County (southern Taiwan). The average birth rate at these facilities is more than one hundred per month.

Sample

Women were eligible for inclusion if they were of Vietnamese descent and recently immigrated to Taiwan (less than three years ago), at least 18 years of age, expected to give birth to a live, singleton baby, and a legal resident. Women with current or past mental health problems, or who subsequently had a stillbirth, neonatal death, and live births with a congenital anomaly were excluded.

Measures

Antenatal measures

Demographic and obstetric characteristics. Women provided details about their age, education, occupation, monthly family income, and marital status. In addition, items assessing feelings about the pregnancy, parity, and number of children were included.

Difficult Life Circumstances Scale (DLC). The DLC is a self-report, 28-item “yes” or “no” scale measuring life-events related to relationships, finances, employment, housing, family, neighbors, illness, and children (LeCuyer-Maus, 2003). A total score of six or more is considered high and associated with poor parenting skills and poor child outcomes (Johnson et al., 1989). The DLC has a reported Cronbach’s alpha of 0.69 and acceptable validity (LeCuyer-Maus, 2003). In the present study, the Vietnamese version of the DLC was translated, back-translated, and validated through a pilot test with eight Vietnamese

expectant mothers. A Cronbach's alpha of 0.76 was obtained.

Social Support APGAR Scale (SSA). The SSA consists of 25 items measuring situational satisfaction with five different support activities (Adaptation, Partnership, Growth, Affection, and Resolve /Commitment) as provided by five different sources (husband, parents, other family, friends, and other acquaintances) on a 3-point scale (0 = hardly ever, 1 = some of the time, 2 = almost always) (Smilkstein, 1978). The total possible score is 50 (2 points × 5 activities × 5 sources). Scores can be classified as low (1 ~ 19), moderate (20 ~ 34), and high (35 ~ 50) support based on Smilkstein's (1978) criteria. The SSA has a reported Cronbach's alpha of 0.88 to 0.93. In the present study, Cronbach's alpha for the translated Vietnamese version of the SSA was 0.96.

Depression Anxiety Stress Scale (DASS-21). The DASS-21 measures the negative emotional states of depression, anxiety, and stress symptoms experienced in the preceding week. Sub-scale items are summed to produce a score (Lovibond & Lovibond, 1995). DASS-21 has been used widely with maternity populations (Gamble et al., 2005). Cronbach's alpha coefficients for the Vietnamese version of DASS-21 subscales were 0.80 for depression, 0.78 for anxiety, and 0.83 for stress in the present study.

General Health Questionnaire (GHQ). The 12-item GHQ is a short and simple scale originally designed by Goldberg (1978) and has been translated into numerous languages, including Vietnamese (Matthey et al., 1997). The GHQ shows adequate internal reliability with Cronbach's alphas ranging from 0.82 to 0.93 (Pevalin, 2000). Items of the GHQ-12 require a response on a 4-point Likert scale anchored from 0 (= not at all) to 3 (= much more than usual). Higher scores represent poorer health and well-being experienced by participants.

Edinburgh Postnatal Depression Scale (EPDS). The EPDS is a 10-item self-report scale that assesses postnatal depressive symptoms and identifies at-risk mothers (Cox et al., 1987) and has been validated for use in pregnancy (Downe et al., 2007). For each item, respondents rate how they felt in the past week on a four point scale of 0 to 3. Possible scores range from 0 to 30 with higher scores implying greater distress. Scores of 13 or more on the EPDS are highly sensitive for correctly identifying true cases of

depression (Huang & Mathers, 2008; Teng et al., 2005). Therefore, a cut-off score of ≥ 13 was used to indicate probable depression.

Postnatal measures

At six weeks postpartum participants provided information on mode of birth, baby weight and gender and completed the SSA, GHQ-12, the DASS-21, and EPDS. Participants also completed the Child Care Stress Checklist (CCSC) which has 23-items related to childcare such as problems feeding the baby, and difficulty quieting the baby (Dennis, 2003). Items on the checklist require a yes-no response with higher scores indicating more childcare stress. The CCSC has good reliability, with a Cronbach's alpha of 0.81 and construct validity as evidenced by the significant correlations between scores of the CCSC and the EPDS (ranging from 0.61 to 0.60) (Dennis, 2003). In the present study, Cronbach's alpha coefficients for the translated Vietnamese version of CCSC was 0.85, indicating satisfactory internal consistency.

Procedure

In Taiwan, pregnant women in their third trimester are offered antenatal care every two weeks under the National Health Insurance system. Women identified by clinic staff as meeting the inclusion criteria for the study were approached by the researcher, invited to participate, and provided with information about the study in order to give informed consent. At the clinics, the researcher was also assisted by two bilingual assistants, both fluent in Vietnamese, Taiwanese or Mandarin. These assistants, originally from Vietnam, had a university degree, and were married with at least one child. They could interpret and assist participants to complete the survey form if required. This strategy aimed to reduce participant anxiety and encourage involvement.

At six weeks postpartum, the women were contacted again and completed the postnatal questionnaire either over the phone or in person with the researcher who travelled to their home. There was no remuneration for participation. Data were collected between February and July 2007. The study received approval from the Human Research Ethics Committee of Griffith University, Australia and the relevant hospital committees in Taiwan.

Data analyses

The SPSS computer software (version 12.0) was used for data analysis. All demographic and obstetric variables were analyzed as categorical data. Means, standard deviations, and percentages were calculated for descriptive data. Associations between demographic variables and depression were identified using either ANOVA or Chi-squared test for nonparametric data. Pearson's coefficients were calculated for the correlation between continuous variables (DLC, CCSC, SSA, GHQ-12, and DASS-21) and maternal depression scores (EPDS). Significant predictors of depression were entered into a multiple regression analysis. Overall, odds ratios (OR) were presented with 95% confidence intervals (CI) and statistical significance was set at a two-tailed p value of 5%.

RESULTS

Participant characteristics

There were 84 eligible pregnant Vietnamese women identified at the antenatal clinic and 44 agreed to participate. At 6 weeks postpartum, 23 women completed the questionnaires (53% retention rate).

Participants' mean age was 23.6 (SD = 3.1) years, and mean years of education was 7.8 years (SD = 2.5) (Table 1). Over a third (36.4%) of participants had only primary (elementary) education. The majority of women (86.4%) were housewives, and only three women worked outside of the home. Approximately 44% of women reported a gross monthly family income of less than NT \$30,000 and were financially dependent on their husbands (or husbands' relatives).

About 52% ($n = 23$) of Vietnamese participants were having their first child, and the remainder ($n = 21$) were multiparous. Three out of 44 women had no health insurance during the study period. They were required to pay the premiums or charges for retrospective applications which posed a heavy financial burden for them.

Results of the comparative analysis indicated four differences between the 23 women who completed the two phases of the study and those lost to follow-up ($n = 21$). Vietnamese women who did not complete the study were younger, had fewer years of education, less social support, and more symptoms of emotional distress during

pregnancy (Table 2).

An investigation of obstetric data found that 18% of mothers (4/23) reported a cesarean birth, which was slightly higher than the World Health Organization's recommendation of 15%, but lower than Taiwan's rate, at nearly 34% in 2010 (Fu et al., 2010). Among the 23 Vietnamese mothers, twelve gave birth to a male infant, and the mean birth weight of infants was 3071.5 gm (SD = 357.1; range 2200 ~ 3640 gm). The percentage of neonates with a birth weight less than 2,500 gm was 8.7% (2/23).

Risk factors for antenatal depression (Time 1)

The mean antenatal EPDS score was 10.3 (SD = 4.7), with 32 % (n = 14) of women scoring 13 or above. The mean score of "experienced difficulties" listed on the DLC was 3.1 (SD = 2.4; n = 44). The three highest ranked items involved illness, partner away from home more than half of the time, and regular arguments with partner (Table 2).

Maternal antenatal depression (EPDS) was significant and positively related to psychological distress scores on the GHQ-12, DASS subscales. Using simultaneous regression analysis, the results revealed that only elevated EPDS scores were predicted by high scores on the antenatal GHQ-12 (Table 3).

Risk factors for postnatal depression (Time 2)

At 6 weeks after birth, the mean EPDS score was 10.4 (SD = 4.4). Nearly 26% (n = 6) of participants had probable postnatal depression. A significant, inverse correlation was observed between infant birth weight and postnatal depression ($r = -0.55, p < 0.01$). Mothers with a low birth weight infant were more likely to report higher levels of depression. There was no statistically significant association between depression and other obstetric variables, such as mode of birth and baby gender.

Women reporting higher levels of difficult life circumstances, less social support (SSA), as well as more child care stress (CCSC) and more psychological distress (GHQ-12, DASS-A, DASS-S) were more likely to suffer from postnatal depression ($r = 0.42$ to $0.73, p < 0.05$) (Table 4). An analysis of individual item scores on the CCSC revealed the item "taking longer time to learn to love baby" scored highest among participants. Other common sources of childcare stress included "trouble establishing regular sleep", "upset

house more than usual”, “unrecognized baby needs,” as well as “lack of experienced mothers to consult”.

DISCUSSION

The study results revealed a high proportion of Vietnamese foreign brides suffered probable depression in pregnancy (32%) and the postpartum (26%). These rates were much higher than those reported in a systematic review by Gavin et al. (2005) with ranges from 6.5% to 12.9% at different trimesters of pregnancy and months in the first postpartum year. Results of the present study were however, consistent with a similar study by Huang and Mathers (2008) who estimated rates of postpartum depression to be between 25.5% and 33%. The high prevalence of depression among Vietnamese women marrying Taiwanese men possibly reflects a response to their specific situation, such as socioeconomic adversity, unfavorable surroundings, or exposure to adverse experiences (Rich-Edwards et al., 2006).

Three major sources of difficult life circumstances were found to occur more frequently among these immigrant women. These included marital conflict, family health-related problems, and physical ailments. Similarly, Oakley et al. (2005) investigated the determinants of depression in low-income women and found partner relationship problems, trouble of finding employment, and minor illnesses were commonly reported. A positive correlation was observed between DLC and EPDS, but was not statistically significant. It could be that the DLC is not sensitive to stressful acculturative experiences (such as difficulties in regards to food preferences or language competency) that might make immigrant women more vulnerable to depression but not be considered so egregious by the general population (Zelkowitz et al., 2004)

Psychosocial risk factors experienced by participating Vietnamese women included adverse life events, poor social support, and elevated psychological symptoms. It has been observed that immigrant women of childbearing age generally experience inadequate emotional and social support, which contributes to poor mental health and psychological well-being (Zelkowitz et al., 2004). Immigrant women are also separated from their family of origin (and/or peers) and may have difficulty creating new networks

with host country nationals. Women in the current study were foreigners marrying Taiwanese nationals and reported relationship conflict and lack of support. For the majority of recent women immigrants, language difficulties are often reported as a chief obstacle and created challenges in their daily life (Hsia, 2004). Women who cannot communicate in the dominant language may tend to isolate themselves from society, leading to a greater sense of powerlessness, and negative affective states.

According to Wu and Tang (2005), lack of awareness of health services and poor social support may contribute to immigrant women's non-attendance at antenatal and/or postnatal clinics. Many Vietnamese participants were dependent on their husbands to accompany them to maternity care appointments because they did not know the way, did not have access to transportation, or possess inadequate language skills to seek assistance. If the husband needed to work, then some women could not attend their clinic appointment.

The current study findings also indicate that pregnant Vietnamese foreign brides, who were younger, less educated, and with greater psychosocial vulnerability were more likely to report higher levels of physical and emotional distress. It is clear that if prevention and treatment interventions for postnatal depression target disadvantaged women, a large proportion of women may benefit. Furthermore, services need to be offered in local communities in order to reach socially isolated women at risk.

The results show that the identification and screening of childbearing-aged immigrant women at risk for developing postnatal depression can be done effectively using the EPDS and GHQ-12 scales concurrently. Navarro et al. (2007) found good concurrent validity (0.80) between the EPDS and GHQ-12 in their survey of 1,453 mothers at six weeks postpartum. At optimal cut-off scores, the EPDS and the GHQ-12 yielded good sensitivity (80; 85.5) and specificity (80.4; 85.3) respectively.

The role of childcare stress in women susceptible to postnatal depression was identified in this study. This result is similar to that of Beck (2001) who found that stressful events associated with caring for a newborn contributed to postnatal depression. Participating mothers with high EPDS scores were more likely to report difficulty with

certain childcare activities, such as consoling baby, recognizing baby's needs, and conflict with family members. Similar findings were reported by Dennis and Ross (2005), who found that mothers exhibiting major depressive symptoms (EPDS > 12) were significantly more likely to report their babies cried often, and they were woken frequently during the night which contributed to fatigue and subjective perceptions of distress.

In addition to experiencing difficulties with childcare, Vietnamese mothers were more likely to report poor attachment to their babies, and often lacked interaction with other experienced mothers who could offer practical advice and tips for mothering. Given the social and interpersonal difficulties faced by some immigrant women, some may feel alienated from their baby and have difficulty bonding. Depression can also adversely affect a mother's ability to bond with her child (Logsdon et al., 2006).

There are strengths and limitations associated with the current study. The study was limited by low response rates, small sample, and sample attrition. Some of the major factors contributing to the low participation rate may have been related to geography and transportation-related barriers, personal characteristics (such as language and low education) and social situation (such as lack of partner support to participate). However, as the results of the study demonstrate, immigrant childbearing women in a new country are at increased risk of poor physical and emotional health, but are often difficult to recruit into research studies that aim to explore their experiences. Although we were able to successfully recruit Vietnamese foreign brides through antenatal clinics in Taiwan, it was difficult to provide follow-up in the women's communities. Predominantly, participants lived in scattered rural settlements along the rocky east coast of Taiwan. Their geographic isolation contributed to their non-attendance at hospital clinics and difficulties with follow-up. Consequently, the sample is not representative of this group in Taiwanese society. The reported prevalence may be an under-estimation of depression and the results should be treated with caution. Furthermore, the small sample may have contributed to bias in the statistical analysis.

CONCLUSIONS AND IMPLICATIONS

Vietnamese immigrant women coming to Taiwan for the purpose of marriage suffer psychological distress before and after childbirth. These symptoms relate to adverse experiences such as stressful life events, childcare stress, and inadequate support from the marital family. These immigrant women have a relatively high prevalence of postnatal symptoms compared to women from Western countries. A careful and detailed assessment of pregnant immigrant women's risk for depression by midwives is crucial. Midwives have a key role in developing effective interventions, or models of service delivery to address this important health issue. The findings highlight the difficulties of recruiting and engaging minority groups, but also the importance of identifying the needs of this at-risk group of childbearing women, especially when they are distributed in areas with limited or no access to maternal health services.

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