Factors associated with postpartum fatigue

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Submission date: 03-Nov-2020 11:07AM (UTC+0700)
Submission ID: 1434638630
File name: Naskah_IJNP_YUNI.docx (79.21K)
Word count: 2833
Character count: 16716

The Factors Influencing Fatigue of Postpartum Mothers in Yogyakarta Indonesia

Abstract

The postpartum mothers had experience physical and psychological changes. A new role as a parent provides new tasks for mothers in baby care. Most postpartum mothers experience fatigue after labor. Postpartum mothers is affected by baby and social support. This study aimed to identify factors associated with postpartum fatigue. A cross-sectional study was designed. The sample in this research used 102 postpartum mothers who live with her family. The data were collected through the Postpartum Fatigue Scale (PFS), infant characteristic questionnaire (ICQ), and social support questionnaire. Factors associated with postpartum fatigue were analyzed using multiple logistic regressions. Most of the respondents had a moderate level of fatigue (48%). Respondent with a low social support level showed a significantly higher-level postpartum fatigue than respondent with good social support. The factor associated with postpartum fatigue includes infant temperament and family income.

Keywords: infant temperament, social support, postpartum, postpartum fatigue

INTRODUCTION

The postpartum mothers experience fatigue in the postpartum period, 88,5% of postpartum mother have fatigue (Kılıç et al., 2015), 60% of postpartum mothers in Yogyakarta experience of fatigue (Saragih et al., 2015) postpartum fatigue is highest in the first month after childbirth and decreases with the age of the baby (Henderson et al., 2019; Iwata et al., 2018). Fatigue is a decreased capacity for mental health and physical due to an imbalance in the utilization and restoration of resources needed to perform activity (Aaronson et al., 1999).

The fatigue that occurs in postpartum mothers is influenced by various factors. Kusumasari, (2018) that primiparous mothers experience higher fatigue compared to multiparous, besides social support, also has an influence on the incidence of fatigue in postpartum mothers (Yesilcinar et al., 2017). Chen & Schmidt (n.d.) said that fatigue is related to the breastfeeding process and the baby's temperament. Mothers who have fussy babies are experience fatigue.

Postpartum fatigue can lead to serious health problems for the mother and her baby. This can affect the mother's physical, psychological, and mental health (Badr & Zauszniewski, 2017). (Khatun et al., (2018) stated that mothers who experience fatigue have a decrease in meeting the needs of their babies and responsibilities toward other family members. The postpartum mother with fatigue becomes irritable, decreased ability to care for babies, and satisfaction in their role as mothers (Giallo et al., 2015). Untreated postpartum fatigue can increase the incidence of postpartum depression (Kim & Hur, 2014; Wilson et al., 2019) and affect breastfeeding self-efficacy (Fata & Atan, 2018).

METHODS

This study used a cross-sectional design. The samples' inclusion criteria of this study were 1 – 6 weeks postpartum, healthy, life with her husband, and healthy infant. The sample of this study is 102 samples recruited by purposive sampling. The samples were taken around the area of Primary health care Kasihan 1 Bantul. This study used a demographic questionnaire was develop by the researcher to collect characteristics of postpartum mothers. The characteristic include age, parity, method of labor, feeding, and economic status. The postpartum fatigue used the Indonesian version of the postpartum fatigue scale (PFS) (Saragih et al., 2015). The postpartum fatigue scale instrument consists of 10 question items in the form of a Likert scale from 1 - 4. This questionnaire contains six questions that are related to mental

symptoms and four questions about physical symptoms regarding the intensity of postpartum. The possible score was ranged from 10 to 40 with three categories, a total score of 10 – 14 is mild fatigue, 15 – 20 is moderate fatigue, and 21 – 40 is severe fatigue (Milligan et al., 1997). Infant temperament was measured using the Indonesian version Infant Characteristic Questionnaire (ICQ) (Astuti et al., 2017) with six questions with a 7 Likert scale. The possible score was 6 to 42, a total score of < 21 is not difficult temperament, and ≥ 21 is difficult temperament (Bates et al., 1979). This instrument was validity and reliability (Cronbach's alpha 0,851) (Astuti et al., 2017). The social support measured used a questionnaire that develops by the researcher. This questionnaire had four components: emotional support, appreciation support, instrumental support, and information support. The questionnaire had 32 questions and grades using a 4-point scale with a Likert scale. The total score is 32 – 128, and participants were grouped as "low social support" (32 – 64 point), "intermediate social support" (65 – 96 point), and "high social support" (97 - 128). This questionnaire was a validity and reliability test with Cronbach alpha 0,92. This research obtained approval from the Ethics Commission of the Universitas Aisyiyah Yogyakarta with the number 1417/KEP-UNISA/I/2020. All participant has written consent in the informed consent. Data analysis used chi-square and multiple logistic regression.

RESULTS

The total of postpartum mother who participated in this study was 102. The result of the study showed that most of the postpartum age is 20 – 34 years old 80,4%. Most of the postpartum mother were vaginal birth, 84,3%. Sixty-four-point, seven percent of the postpartum mother had a family income ≥ of Rp1.800.000 rupiah. More than half of the participants in this research were multipara (64,7%). Almost all postpartum mothers in this study were given breast only for the baby. Seventy-four-point, five percent of postpartum mothers in this research have a baby with a difficult temperament (Table 1).

Table 1. The Characteristics of the Respondents and factors influencing the postpartum fatigue

Variable	All n=102 (%)	Fatigue n=68 (%)	Non-Fatigue n=34 (%)	P-value
Age				
< 20 years	1(1)	0 (0)	1 (2,9)	0.362
20 – 35 years	82 (80.4)	55 (80,9)	27 (79,4)	
>35 years	19 (18.6)	13 (19,1)	6 (17,6)	
Family income				
< Rp1.800.000	36 (35.3)	30 (44,1)	6 (17,6)	0.016
≥ Rp1.800.000	66 (64.7)	38 (55,9)	28 (82,4)	
Parity				
Primipara	35 (34.3)	20 (29,4)	15 (44,1)	0.210
Multipara	67 (15.7)	48 (70,6)	19 (55,9)	
Feeding method				
Breast only	97 (95.1)	64 (94,1)	33 (97,1)	0.662
Combined	5 (4.9)	4 (5,9)	1 (2,9)	
Birth method				
Vaginal birth	86 (84.3)	57 (83,8)	29 (85,3)	1.000
Section cesarean	16 (15.7)	11 (16,2)	5 (14,7)	
Infant Temperament				
Difficult	76 (74.5)	11 (16,2)	15 (44,1)	0.005
Not difficult	26 (25.5	57 (83,8)	19 (55,9)	
Social support				
Intermediate	42 (41.2)	19 (27,9)	23 (67,6)	0.000
High	60 (58.8)	49 (72,1)	11 (32,4)	

This study shows that 55 postpartum mothers in 20 – 35 years old have postpartum fatigue. Fifty-five-point, nine percent of the postpartum mother with a family income of more than one million eight hundred thousand mothers, have fatigue. The postpartum mother that gives breast only to her baby has fatigue (94,1%). The 57 postpartum mothers with vaginal birth in this research had fatigue. The postpartum mother with not difficult infant temperament had fatigue (57). Forty-nine of postpartum mothers in this study with high social support have fatigue (Table 1). This study shows that 48% of the postpartum mother has moderate fatigue scale (Table 2).

Table 2. The prevalence of postpartum fatigue

Level of Fatigue	n	%
Mild	34	33.3%
Moderate	49	48.0%
Severe	19	18.6%

Table 3. Logistic regression analysis for selected factor for postpartum fatigue in Yogyakarta

Variable	OR (CI 95%)	P-value
Family income	0.364 (0.126 – 1.056)	0.063
Infant temperament	3.064 (1.073 – 8.750)	0.036
Social support	4.386 (1.709 – 11.256)	0.002

The result from logistic regression analysis showed social support as the determinant for postpartum fatigue with the Adjusted Odds Ratio is 4.38, with 95% CI (1.709 – 11.256). The interpretation of the AOR value was that postpartum mothers with low social support have a risk of 4.38 for postpartum fatigue (table 3).

DISCUSSION

Therefore, there was a statistically significant association between postpartum fatigue and family income, infant temperament, and social support. This is correlated with other findings that individual, couple, and community-level interventions in the case to give enlisting support might be useful components for reducing the complications after birth, such as postpartum fatigue (Bakker et al., 2014; Gudayu & Araya, 2019). On top of that, Hung & Chung indicated, in Taiwan, the postpartum women's perception of their level of stress at each point of time is even between 'not at all' and 'seldom' thanks to the support received from family (Hung & Chung, 2001). Good mental health may be necessary to adapt to and cope with new situations after delivery (Bakker et al., 2014). According to Hung & Chung, (2001) nearly all Chinese women conceptually still follow the indigenous beliefs and practices, which include a distinct postpartum period, protective rituals reflecting the vulnerability of the new mother, social seclusion, mandated rest, assistance in tasks from relatives, and social recognition of new social status through rituals. These are the basic components that provide necessary social support and protect postpartum women from ailments. The importance of social support during pregnancy and childbirth is also argued by Mustafa et.al. However, according to their study, very little people know about perceived social support and its influence on emotional health and well-being (Negron et al., 2013).

This study shows that 48% of the postpartum mother has moderate fatigue scale. This is in line other study that postpartum mother have postpartum fatigue (Giallo et al., 2015; Khatun et al., 2018; Kılıç et al., 2015; Saragih et al., 2015). Postpartum mothers have fatigue in the first six months, and the level of fatigue will be decrease include the increase of age the baby (Iwata et al., 2018). Research by Henderson et al., (2019) shows that level of postpartum mothers highest in the first one days after delivery. The postpartum

mother has a higher level of fatigue in the morning. When evening, the level of fatigue was decreased (Troy & Dalgas-Pelish, 2003). Fatigue occurs due to change in new roles, mothers often wake up at night, at two months postpartum, they have a sleep duration of 6,29 hours with a mean of 2 – ½ sleep episodes (Creti et al., 2017). The postpartum mothers often wake up at night to do new activities. Mothers wake up an average of 3 times at night, during maternal nocturnal awakening were primarily for infant feeding (49%), general infant care (18,5), and infant changing (12%) (Insana et al., 2014).

On the contrary, this research shows that the association between age and postpartum fatigue was negative. Although maternal age has been previously recognized as one of the risk factors for postpartum fatigue (Henderson et al., 2019; Molina-García et al., 2019), women who are older are at risk for postpartum fatigue because they may have more difficulties or take longer to recover from pregnancy and delivery (Bakker et al., 2014), the research by Henderson, et al. strengthened that low education and low socioeconomic status were previously thought to be stronger risk factors rather than that factor, as described in our findings either. Moreover, this research also shows that parity, feeding method, and birth method and postpartum fatigue were not being statistically significant (Table 1). This is not in accordance with Henderson's research that multiparous women were at significantly reduced risk of postpartum fatigue, and in this research has not reported on associations between mixed feeding and postpartum fatigue (Henderson et al., 2019).

This study in line with other research (Iwata et al., 2018; Yesilcinar et al., 2017) shows that the satisfaction of social support has significance with postpartum fatigue. The social support for postpartum mothers includes emotional, informational, instrumental, and appreciation. Social support to postpartum has significance with women's health status (Hung & Chung, 2001) and helping women transition into motherhood (Stapleton et al., 2012). Instrumental support, like infant care and homework, decreases postpartum fatigue (Runquist, 2007). Support social can come, form husband, family, and friends. The postpartum mother believes that support should be provided without asking. They say that instrumental support as essential to their physical and emotional recovery (Negron et al., 2013).

CONCLUSIONS

The postpartum mother in this study has a moderate level of postpartum fatigue (48%). Factors affecting postpartum fatigue are family income, infant temperament, and social support. Health professionals should provide education about postpartum adaptation and involve the family in infant care in the early postpartum period.

ACKNOWLEDGEMENT

We thanks to postpartum mothers who participated in this study, LP3M Universitas Muhammadiyah Yogyakarta, and Primary health care in Kasihan 1 Bantul Yogyakarta.

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