IJACT 18-4-6

Family Factors Influencing Korean Mothers' Postpartum Depression

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Abstract

The purpose of the study was to examine the effects of family related factors (mothers' self-esteem, mothers' parenting stress, mothers' marital satisfaction, fathers' parenting involvement, and social support) on mothers' postpartum depression. The subjects were 797 households that were extracted from the 1ˢᵗ wave of the Panel Study of Korean Children (PSKC). The study variables were measured using the survey questionnaires, and analyses of Pearson's correlation and multiple regression were conducted. Results showed that family related factors significantly predicted mothers' postpartum depression. Moreover, the most significant predictor was mothers' parenting stress, followed by marital satisfaction, self-esteem, fathers' parenting involvement, and social support. Study findings indicate that mothers' postpartum depression is attributed to not only personal but also family related factors. Our results suggest importance of parent education and family support along with social support.

Keywords: Postpartum depression, Korean mothers, family factors, parenting stress

1. Introduction

Mother's postpartum depression is a type of depression that many women experience after having a baby. Researchers in the field of perinatal mental health have long focused on this psychological symptoms of mothers after childbirth. Whilst the maternity blues is a transient physiological reaction, postpartum depression has relatively severe and long lasting symptoms. Women who have postpartum depression develop symptoms an average of 1 to 3 weeks after childbirth, but the onset can be anytime during the first year after childbirth [1]. Postpartum depression is estimated to affect 10% of women in wealthier countries, and an even higher percentage in countries that are less wealthy [2]. Postpartum depression is part of mothers' mental health and involves intense feelings of anxiety, hopelessness, or sadness. It is regarded that postpartum depression would affect the mother's day-to-day life including marriage and child rearing.

Previous studies [2-4] found that maternal depression such as postpartum depression could negatively affect child development. Netsi et al. [2] examined the long-term effects of persistent, severe postpartum depression and its effects on children using data from the British Avon Longitudinal Study of Parents and Children. Evidence suggested that both persistent and severe postpartum depression increased the risk of adverse outcomes in children. Major negative effect was an association between postpartum depression and delayed cognitive and language development. In addition, there is a documented link between postpartum depression and higher rates of depression in children during the latter teen years [3]. Moreover, women who met the criteria for moderate and severe postpartum depression at 2 months and at 8 months post delivery made up the

most vulnerable group and were found to be more likely to experience depression 11 years later. Therefore, it is worthy to study the postpartum depression of mothers who raise infants less than 1 year.

Focusing on its negative effects on child development, researchers in social studies such as child development and education have investigated related factors in various micro contexts. In terms of mothers' psychological factors, self-esteem was regarded as one of major factors that affected their postpartum depression [5-7]. Self-esteem refers to an individual's sense of his or her value or worth, or the extent to which a person values, approves of, appreciates, prizes, or likes himself or herself [8]. It is generally considered the evaluative component of the self-concept, a broader representation of the self that includes cognitive and behavioral aspects as well as evaluative or affective ones. According to the previous studies, mothers who had higher self-esteem reported less depressive symptoms after giving births. High self-esteem might buffer stresses and anxiety that are caused by postpartum depression.

Meanwhile, some psychological factors of mothers are related to their family members such as their babies and husbands. For instance, postpartum depression was found to be associated to mother's parenting stress [6] and relationships with husbands [5, 7, 9]. Parenting stress is the experience of distress or discomfort that results from demands associated with the role of parenting [10]. According to Abidin [11], parenting stress is an internal mechanism underlying motives, beliefs, and reasons which energizes and encourages parents to utilize the resources available to them to support their parenting. Mothers' parenting stress was correlated with their postpartum depression [12] and also directly affected postpartum depression [6]. While parenting stress has a negative association with postpartum depression, supportive relationships with spouse was found to be a positive association with it. In particular, women's marital adjustment [5] and marital satisfaction [9] influenced their postpartum depression. Although previous result of Western study did not find the direct or indirect effects of marital satisfaction on postpartum depression, Korean studies reported that postpartum depression was significantly affected by marital satisfaction [7]. Iwafuji and Muto [13] also reported that Japanese mothers' depressive symptoms during the postpartum period were correlated with marital intimacy.

In addition to mothers' psychological factors, practical support from husbands and others might also affect postpartum depression. Especially for primiparous mothers who have no experience in postpartum care, it is necessary to establish a supportive system. It is conceivable that postpartum depression may be reduced or alleviated with the assistance of support from spouses and other people. Empirical evidence showed that fathers' involvement in parenting significantly influenced postpartum depression [9]. Father involvement in childcare activities such as providing basic care was related to lower levels of maternal depression and higher levels of mother's satisfaction in general [14]. Similarly, fathers' support led to mothers' reduced postpartum depression [15]. Moreover, the belief that social support helps to reduce postpartum depression has been supported. Social support is defined as support from people who do not live together and differentiated from father support. Recent studies showed that mothers' postpartum depression was inversely related to social support [5-7, 16].

In summary, we inferred that postpartum depression was affected by various family related factors; mothers' own psychological factor such as self-esteem, mothers' psychological factors that were related with family members of children and husband, fathers' parenting involvement, and social support (see Figure 1). The assumption of the study is partially based on the family system approach proposed by Minuchin [17]. It proposes that the members of a family form a complex net of reciprocal influences and can only be fully understood in relation to others and in the context of the larger family unit. Therefore, we aimed to investigate the effects of family related factors on mothers' postpartum depression. The research question for the study is:
[Research question] How do family related factors (mothers' self-esteem, parenting stress, marital satisfaction, fathers' parenting involvement, and social support) affect mothers' postpartum depression?

2. Method

2.1. Subjects and Procedures

We extracted the data used in this study from the Panel Study on Korean Children (PSKC) of the Korea Institute of Child Care and Education (KICCE) [18]. This national-level longitudinal was designed by Korea Institute of Child Care and Education to explore the development and other influential environmental factors of Korean children from the time of their birth. The populations were 465,982 households with newborns in

South Korean during 2008, and 2,078 households (about 0.5%) were selected using the population-based multi-stratified sampling strategy.
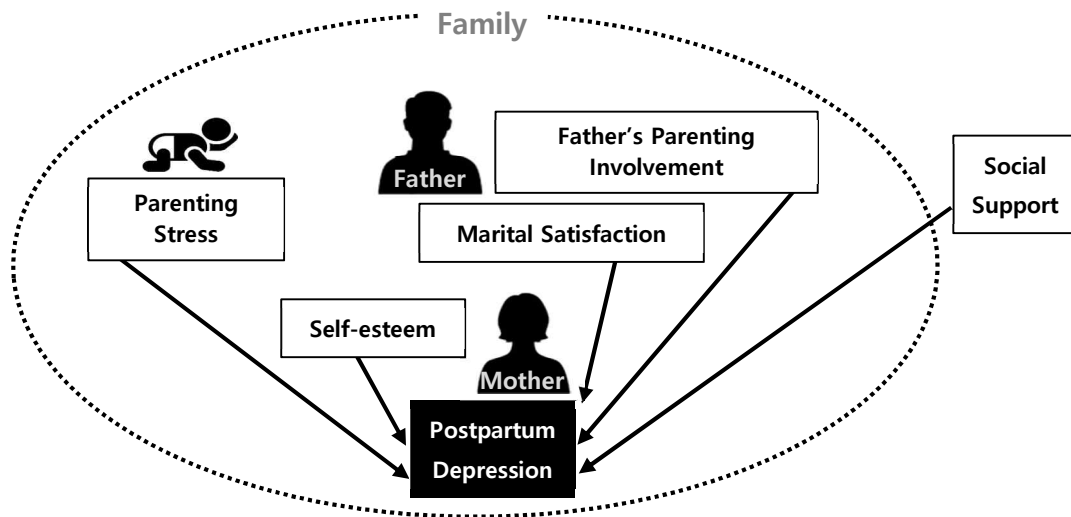
Figure 1. Research model: Effects of family related factors on postpartum depression

We used the data from 2008, the 1st wave of the survey, and selected 797 households as subjects. Three criteria used were (1) child was a first one, (2) both mother and father lived with child together, and (3) mothers completed all the questionnaires the present study used. The demographic characteristics of the families and children showed that mothers' mean age was 30.16 years (*SD* = 3.68), ranging from 19 years to 46 years. Children's mean age was 5.36 months (*SD* = .96), ranging from 4 months to 10 months. 53.3% (*n* = 425) of children were boys, and 46.7% (*n* = 372) were girls. Mothers' postpartum depression was measured using telephone interview when they were 4 months after giving birth. Information on other variables such as mothers' self-esteem, parenting stress, marital satisfaction, fathers' parenting involvement, and social support were collected from mothers using survey questionnaires by mailing.

2.2. Measures

2.2.1. Mothers' Postpartum Depression

Mothers' Postpartum Depression (MPD), a dependent variable, was measured using K6 scale [19]. The scale consists of six statements on a 5-point Likert scale with score 1 indicating 'none of the time' and score 5 'all of the time.' The mean score ranged from 1 to 5, with a higher score indicating a higher level of depression. Cronbach's α in this study was .91. An example of items is "Have you felt that you were worthless?"

2.2.2. Mothers' Self-esteem

Mothers' Self-esteem (SE) was measured using Rosenberg Self-Esteem Scale (RSS) developed by Rosenberg [20] and translated into Korean by Lee [21]. RSS consists of 10 statements on a 5-point Likert scale with score 1 indicating 'never' and score 5 'always'. The mean score ranged from 1 to 5, with a higher score indicating a higher level of self-esteem. Cronbach's α in this study was .85. An example of items is "I am satisfied with myself."

2.2.3. Mothers' Parenting Stress

Mothers' Parenting Stress (PS) was measured using the Parenting Stress Scale (PSS) by Kim and Kang [22]. PSS consists of 10 statements on a 5-point Likert scale with score 1 indicating 'never' and score 5 'always'. The mean score ranged from 1 to 5, with a higher score indicating a higher level of parenting stress. Cronbach's α in this study was .83. An example of items is "I am not confident in that I would be a good

parent."

2.2.4. Mothers' Marital Satisfaction

Mothers' Marital Satisfaction (MS) was measured using the Revised-Kansas Marital Satisfaction Scale (RKMSS) [23]. The Kansas Marital Satisfaction Scale was originally developed by Schumm et al. [24], and Chung [23] customized it reflecting views of the actual circumstances in Korean with validation. RKMSS consists of 4 statements on a 5-point Likert scale with score 1 indicating 'very dissatisfied' and score 5 'very satisfied.' The mean score ranged from 1 to 5, with a higher score indicating a higher level of marital satisfaction. Cronbach's α in this study was .92. An example of items is "How much are you satisfied with your husband as a father."

2.2.5. Fathers' Parenting Involvement

Fathers' Parenting Involvement (FPI) was measured using the sub-factor of the Husband's Family Role Performances Scale [25]. The questionnaire consists of 4 statements on a 5-point Likert scale with score 1 indicating 'never' and score 5 'always'. The mean score ranged from 1 to 5, with a higher score indicating a higher level of fathers' parenting involvements. Cronbach's α in this study was .75. An example of items is "My husband does works such as feeding or cleaning baby."

2.2.6. Social Support

Social Support (SS) was measured using the Social Support Scale (SSS) by Lee [26]. SSS consists of 12 statements on a 5-point Likert scale with score 1 indicating 'never' and score 5 'always'. The mean score ranged from 1 to 5, with a higher score indicating a higher level of social support. Cronbach's α in this study was .93. Items in Social Support Scale include support from neighborhood or social agencies but support from people who live together.

2.3. Data Analyses

Data were analyzed using Statistical Package for Social Sciences (SPSS, version 22). Descriptive statistics such as the means and standard deviations as well as reliability coefficients were calculated along with Pearson's correlation coefficients. The analysis of multiple regression was conducted with postpartum depression as the dependent variable. Independent variables were mothers' self-esteem, parenting stress, marital satisfaction, fathers' parenting involvement, and social support.

3. Results

An examination of correlations (see Table 1) revealed that independent variables were not highly but moderately correlated, with the range of correlational coefficients $r = -.45 \sim .56$ ($p < .01$). As the collinearity statistics of the variance inflation factors (*VIF*) were all within accepted limits ranging from 1.06 to 1.60, the assumption of multicollinearity was deemed to have been met. The analysis of multiple regression (see Table 2) revealed that the regression model was significant, $F(5, 746) = 109.78$, $p < .001$. It means that family related variables significantly predicted mothers' postpartum depression, explaining 42.4% of the variance ($R^2 = .42$, $p < .05$). The *t*-test scores related to the significance of the regression coefficients showed that mothers' self-esteem, mothers' parenting stress, mothers' marital satisfaction, fathers' parenting involvement, and social support were all significant predictors of postpartum depression ($p < .05$). When standardized regression coefficients β were taken into consideration, the most significant predictor was found to be the mothers' parenting stress ($\beta = .38$, $t = 11.69$, $p < .001$), followed by marital satisfaction ($\beta = -.28$, $t = -7.87$, $p < .001$), self-esteem ($\beta = -.22$, $t = -6.84$, $p < .001$), fathers' parenting involvement ($\beta = .10$, $t = 3.00$, $p < .01$), and social support ($\beta = -.06$, $t = -2.05$, $p < .05$).

Table 1. Correlation coefficients between variables (*N* = 797)

Independent variables	(a)	(b)	(c)	(d)	(e)	(f)
(a) Mothers' self-esteem	1.00	-	-	-		
(b) Mothers' parenting stress	-.44**	1.00	-	-		
(c) Mothers' marital satisfaction	.31**	-.36*	1.00			
(d) Fathers' parenting involvement	.22**	-.26**	.56**	1.00		
(e) Social support	.19**	-.21**	.13**	.12**	1.00	
(f) Postpartum Depression	-.45**	.55**	-.43**	-.22**	-.20**	1.00
M	2.76	2.65	3.93	3.72	4.22	11.77
(*SD*)	(.72)	(.60)	(.74)	(.77)	(.60)	(4.36)

** $p < .01$

Table 2. Analyses of Multiple regression for variables predicting postpartum depression (*N* = 797).

	β	*t*
(Constant)		9.20***
Mothers' self-esteem	-.22	-6.84***
Mothers' parenting stress	.38	11.69***
Mothers' marital satisfaction	-.28	-7.87***
Fathers' parenting involvement	-.10	-2.30**
Mothers' social support	-.06	-2.05*
F		90.74***
R²		.42***

* $p < .05$, ** $p < .01$, *** $p < .001$

4. Conclusion and Discussion

The present study was designed to examine the effects of family related factors (mothers' self-esteem, parenting stress, marital satisfaction, fathers' parenting involvement, and social support) on mothers' postpartum depression. In this sample of the 1st Wave of PSKC, we found some evidence for that mothers' postpartum depression was effected by family related factors such as mothers' self-esteem, parenting stress, marital satisfaction, fathers' parenting involvement, and social support, which supported the family system approach [17]. Our findings support those reported in previous studies related to postpartum depression. For instance, mothers' self-esteem [5-7] along with both parenting stress [6, 12] and marital satisfaction [5, 7, 9, 13] affected postpartum depression. In addition, fathers' involvement in parenting [9, 14-15] and social support [5, 7, 16] were negatively associated to postpartum depression. The result that parenting stress and marital satisfaction were the most important predictors showed the importance of dyadic relationships among family members. Our result also proposed that husbands played considerable roles in postpartum depression, implementing the importance of father education especially for the postpartum stage. Based on the results, we suggest various policies of postpartum intervention including parental education programs or mother-child health services to reduce postpartum depression and facilitate birth rates.

Although our research provides important information about postpartum depression using national-level data, there are limitations to the study. The focus in our study was on the general investigation of several family related factors and their relative effects. Thus, we recommend that future studies be conducted to examine the mediating or regulating roles of some factors on others. Another limitation of the study is that we used the panel data of the Republic of Korea; therefore, the generalizability of the results to other countries might be another limitation. Hence, we suggest that future research examine and compare with data of other countries.

Acknowledgement

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