

Moderating Effect of Family Support on the Relationship between Parenting Stress on Depression of Immigrant Women

Park, Ok Im¹ · Moon, Hee²

¹Professor, Department of Social Welfare, Suncheon National University,

²Assistant Professor, Department of Nursing, Gwangyang Health College

Purpose: The purpose of this research was to identify levels of parenting stress, depression and family support of immigrant women and to investigate the moderating effect of family support on the relationship between parenting stress and depression of immigrant women. **Methods:** The research was carried out with 86 immigrant women who were registered in multi-cultural support centers and receiving education in three cities South Jeolla Province. Data were collected using structured questionnaires and analyzed using descriptive statistics, correlation analysis and hierarchical regression analysis with SPSS/WIN 17.0. **Results:** The level of parenting stress perceived by the immigrant women was moderate and the level of depression was slightly high. The level of family support as perceived by the wives was slightly high as well. There was a positive correlation between depression and parenting stress but no correlation with family support. Effects of parenting stress on depression were moderated by family support. **Conclusion:** Results indicate that family support provided to immigrant women moderated effects of parenting stress on depression. Accordingly, as family support is critical to immigrant women, education and other programs need to be provided to promote understanding of family support as a help for immigrant women.

Key Words: Parenting stress, Postpartum depression, Family support

INTRODUCTION

Immigrant women in Korea refer to the women of families consisting of man and woman, whose nationalities are different, living in Korea. The number of international marriages have been increasing since the Rural Bachelor Marriage Project was implemented in 1990's. Many guys are increasingly getting married internationally due to the low birth rate, aging and gender imbalance of demand on marriage. In fact, there were 33,300 cases of international marriages, which amounts to 10.8% of total marriage cases of 309,759 ones in 2009. This indicates that one couple out of ten couples are international ones. Especially the number of women married to Korean men in 2009 is 2,542 which accounts for 76% of total cases of international marriage (Statistics Korea, 2010).

The immigrant wives, especially, are forced to be

pregnant early even before they become accustomed to the Korean way of life, sometimes without even basic knowledge about delivery (Lim, 2009). The children are nurtured with their mother's lack of ability to take care of the children, language communication and information.

In general, most women experience depression after delivery. This period is considered an important moment for adaptation as they are given the role of mother and become in charge of caring for their families. The symptoms of depression, which refers to the emotional change that mothers experience after delivery, are varying from light emotional change to the morbidity. In modern society, it is hard to depend on the primary group including family and relatives, because family nuclearization is being accelerated rapidly. This can signify the lack of communication with other people and this leads to lack of support and information for

Address reprint requests to: Moon, Hee, Department of Nursing, Gwangyang Health College, 223-1 Deokrye-ri Gwangyang 545-703, Korea.
Tel: 82-61-760-1446, Fax: 82-61-763-9009, E-mail: moon6404@hanmail.net

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successful role adaptation as a mother. Hence, they are embarrassed and become depressed. This increases the mobility rate of disease of depression after delivery. The postpartum after delivery should be considered as an important phenomenon as it affects not only the women themselves but also the growth and personality development of the children and the husband (Choi, 2005).

The research on depression conducted so far dealt with the relationship between postpartum and adaptation of maternal identity, postpartum and parenting stress, the relationship between postpartum and social support. Among them, parenting stress, especially, is considered as the most affective variable related to depression. Parenting stress occurs in a specific situation which can occur while a family system is being developed. Delivery itself can give stress on women as it can be seen as an important period of life in which the women are given maternal identity and responsibility as a mother. Parents experience stress related to parenting due to the innate characteristics of their children, themselves and the feature of relationship between parents and children (Koniak-Griffin, Logsdon, Hines-Martin, & Turner, 2006). Cho and Yang (2001) argued that there is a positive correlation between depression and parenting stress. And Ahn and Oh (2006) found that parenting stress affects depression mostly through analyzing the causes of depression. The research conducted by Kwon, Kim, Kim and Jang (2006) also support the argument on the effect of parenting stress on depression as the most effective variable on such symptom.

In addition, social support is essential after delivery and during parenting as these are critical moments not only for the women and but also for their families and the social support is generated mostly by the members of the families (Kim, 2008). Family can be seen as the primary environment for human and as the root of stability and support. It protects and supports the members of a family both collectively and individually. Therefore, the support from family is an important social basis for a person to overcome difficulties in his/her life. Many studies verified that the support from family helps a person's psychological stabilization, overcome frustration and fosters the ability to sort out problems so that this support moderates the level of depression (Park, 1985). The research of Lim (2010) indicates that family support decreases the level of depression after delivery and Cho and Yang (2001) found negative correlation between family support

and depression and this showed that family support is a variable which is related to depression.

Immigrant wives experience various health problems due to pregnancy shortly after marriage, delivery, puerperium and cultural differences. According to Jeong et al. (2009), it took immigrant wives about 7 months to get pregnant. This means that they conceived before they became used to Korean society. And because most of them conceived for the first time they seem to experience various problems after delivery due to lack of information about delivery process and ability for self-nursing. Most of the studies on immigrant wives dealt with the category of cultural adaptation and its related stress, marriage satisfaction and family conflict or health problems occurring in the process of understanding Korean culture, but they rarely dealt with the depression.

This paper, accordingly, investigates the level of parenting stress, family support and depression of immigrant women and verifies the moderating effect of family support on the relationship between parenting stress and depression.

METHODS

A. Research Design

This is a descriptive research which has been conducted with immigrant women to examine the level and correlation between parenting stress, depression and family support. And it is to investigate whether family support works as a variable controls the relationship between parenting stress and depression as well.

B. Research Subject

This research has been conducted on immigrant women, who are registered in multi cultural family support centers in three cities South Jeolla Province and are receiving education, from countries, which accounts for high proportion of immigrant wives in Korea, including Philippines, Vietnam, and China. In previous studies it is revealed that immigrant women were psychologically unstable mostly between one and two years after they came to Korea (Koo, 2007). Hence, this research has been conducted on the immigrant wives those who live in Korea for more than two years and gave birth to their children before thirty six months at least. To collect data, researchers visited multi-cultural family support center and explain the

purpose of this research and how to fill in the questionnaire. If they understood the contents, they have been asked to sign on informed consent and fill in the questionnaire on the spot and the completed ones have been collected directly. The number of participants has been calculated by using G*Power 3.1 program. The minimum sample size analyzed by regression analysis with significance level is .05, power is 90%, effect size is .15 and 2 predictor variable was 88. 90 participants, in total, have been selected in total incase of desquamation, 4 participants of them have been dropped out hence, this research has been proceeded with 86 participants in total. Data collection has been conducted from the 10th to the 30th of June 2010.

C. Instrument

The questionnaire for this research has been translated by translator of multi-cultural family center to Filipino, Vietnamese and Chinese.

Depression has been measured by using Kim's (2006) translation version of research method developed by Cox, Holden and Sagovsky (1987). Each item consists of four Likert scale of which scores are from 1 for mere to 4 for severe, the higher the score the severer the symptom. The reliability was Cronbach's $\alpha = .73$.

To investigate parenting stress, Kim (1998) used a modified PSI (Parenting Stress Index) which consisted of thirty five items and were developed by Abidin (1990). Each item consists of four Likert scales. Scores range from 1 for mere to 5 for severe. The higher the score the higher the parent's stress caused by parenting. The reliability in this research was Cronbach's $\alpha = .87$.

To investigate family support, the twelve positive items United Nations Development Program project was used, which has been moderated by Park's (1985) social support scale and used by Kim (2005). Family support includes love, understanding, encouraging, faith, concern, information related to problem solving, required money, commodity, compliments, and recognition which the woman feels from her family. Each item consists of four Likert scale of which scores range from 1 for mere to 4 for severe, the higher the score the higher the level of family support. The reliability in this research was Cronbach's $\alpha = .90$.

D. Statistical analysis

Statistical analysis has been conducted on the collected data using SPSS/WIN 17.0 program. The demo-

graphic characteristics of research subjects have been analyzed based on the frequency of participants and its percentage. The degrees of parenting stress, depression and family support have been analyzed using mean and standard deviation. The correlation between parenting stress, depression and family support has been calculated by using Pearson's Correlation Coefficient. Hierarchical regression analysis has been used to examine the effect of family support and the linkage between parenting stress and depression of the participants.

RESULTS

A. The Demographic Characteristics of Immigrant Women

The demographic characteristics of participants are indicated in Table 1. It has been found that the average age of husbands of immigrant wives is 42.3 years old. This is higher than their wives which is 27.9 years old. The number of participants who graduated high school accounts for 50.0%, middle school is 30.2% and college or further education 16.3%. 79.1% of immigrant wives do not have jobs and 72.1% of their husbands are farmers, fisherman and forestry workers. The average wage of husbands between one million and two million won accounts for 48.8%, less than one million accounts for 25.6%, two million and 3 million won accounts for 15.1%. 69.8% of the immigrants' wives have one child, 29.1% of them have two children. 74.4% of them had their children by natural delivery.

B. Parenting Stress, Depression and Family Support of Immigrant Women

The degrees of parenting stress, depression and family support of immigrant wives are indicated in Table 2. The degree of parenting stress of the immigrant wives was 2.56 out of 5, that of postpartum was 2.85 out of 4, which is relatively high. In addition, degree of family support felt by immigrant wives was 3.17 out of 5 which is relatively high. The correlation between variables of immigrant wives is indicated in Table 3. The relationship between depression and parenting stress was positive ($r = .43$, $p < .01$) and there was no relationship with family support found.

C. The Moderating Effect of Family Support on the Effect of Parenting Stress on depression

Hierarchical regression analysis has been conducted

Table 1. Demographic Characteristics of the Subjects (N=86)

Characteristics	Categories	n (%)
Age (year)	≤ 25	28 (32.6)
	26~30	36 (41.9)
	31~35	15 (17.4)
	≥ 36	7 (8.1)
Spouse age (year)	≤ 40	33 (38.4)
	41~45	37 (43.0)
	46~50	11 (12.8)
	≥ 51	5 (5.8)
Education	Elementary school	3 (3.5)
	Middle school	26 (30.2)
	High school	43 (50.0)
	Over college	14 (16.3)
Spouse education	Elementary school	4 (4.7)
	Middle school	9 (10.5)
	High school	55 (64.0)
	Over college	18 (20.9)
Job	Yes	18 (20.9)
	No	68 (79.1)
Spouse job	AFF	62 (72.1)
	White color job	5 (5.8)
	Public officer	3 (3.5)
	Commerce business	9 (10.5)
	Transportation business	7 (8.1)
Average monthly income (10,000 won)	≤ 100	22 (25.6)
	101~200	42 (48.8)
	201~300	13 (15.1)
	≥ 301	9 (10.5)
Number of children	1 person	60 (69.8)
	2 people	25 (29.1)
	3 people	1 (1.2)
Delivery	Natural birth	64 (74.4)
	Cesarean section	22 (25.6)

AFF=agriculture, fishery, and forestry.

Table 2. Mean and Standard Deviation of Variables

Variables	M±SD
Parenting stress	2.56±0.64
Depression	2.85±0.69
Family support	3.17±0.64

to investigate the effect of family support on parenting stress and depression. The analysis consists of three steps and they are as follows. Firstly, the analysis applied to the independent variable on dependent

Table 3. Correlation Coefficients of the Parenting Stress, Depression, Family Support

Variables	Parenting stress	Depression	Family support
Parenting stress	-		
Depression	.427***	-	
Family support	-.098	-.237*	-

* $p < .05$; *** $p < .001$.

variable. Secondly, the same process is conducted on dependent and moderating variables about dependent variable. Finally, the hierarchical regression analysis is applied to dependent and moderating variable and interaction between them to compare increased R^2 . If the results are statistically significant, the moderating effect is verified.

As a result of the hierarchical regression conducted on depression as the dependent variable and on parenting stress as the moderating variable, the interaction between parenting stress, family support has increased and this has been compared to the increased R^2 . As indicated in Table 4, the result showed that R^2 has increased from .22 to .34 and ΔR^2 was 12 which was significant at $p < .001$. This may indicate that the relationship between parenting stress and depression is moderated by family support. That is to say, the level of depression and parenting stress together is moderated by the degree of family support.

DISCUSSION

In this article, the effect of family support on the degree of depression, parenting stress, family support and the relationship between parenting stress and depression have been investigated. The results indicated that family support moderates the influence of parenting stress on depression and the details are as follows.

The level of parenting stress felt by immigrant women was normal. This sort of stress was caused by embarrassment and frustration resulted from general communication in a new environment (Crnic & Greenberg, 1990). The immigrant wives experience more parenting stress as they have difficulties caused by new language, way of thinking, life style, and religion. In addition, the women do not have personal time as they nurture their children. They also lack confidence as a mother and are burdened by their motherly responsibility (Buultjens & Lianputtong, 2007). Hence, they seek emotional support but they are not accustomed

Table 4. Moderating Effect of Family Support on the Relationship between Parenting Stress and Depression

Dependent variables	Categories	B	β	R ²	ΔR^2
Depression	Step 1			.22**	
	Parenting stress	0.495	0.461		
	Family support	-0.291	-0.269		
	Step 2			.34**	.12***
	Parenting stress	2.304	2.144		
	Family support	0.995	0.922		
	Parenting stress x family support	-0.618	-2.202		

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

to the new family and social environment (Kim, 2010) this leads to difficulties in interacting with their children and parenting stress.

The level of depression felt by immigrant wives was relatively high. Women are concerned by their health do so in the social context they belong to as they have deep relationship with the society and culture they belong to. The concern for women's health, accordingly, needs to be understood in the light of their entire living environment (Kim & Kim, 2008). Many immigrant wives have problems caused by difficulties in communication, cultural differences, different social values and way of thinking. The unsorted problems cause problems with their mental health including depression (Yang & Kim, 2007). A research conducted by Lim (2011) to investigate the level of depression of immigrant women indicated that the wives have mere depression as a whole. However, the mini mental state exam conducted by the Ministry of Health and Welfare showed a different result. They found that the level of depression felt by immigrant wives was higher than that of the general public. There needs to be further research on depression as it is affected by various elements such as staying period and psychological stability of the person.

The level of family support felt by immigrant wives was relatively high. The immigrant wives have difficulties, especially, with communicating in a new language. Communication is a critical element for the wives to become accustomed to the new society and to form relationship with other people. The difficulties in communication not only impede communication itself but also cause secondary problems. Communication plays an important role in sorting out conflicts and fostering intimacy (Kim, 2007). Therefore, the difficulties of immigrant wives in communication causes

problems in forming intimacy with other member of the family and this can badly influence the level of family support felt by the wives as they are not admitted as a proper member of the family by the other members.

The correlation between parenting stress, depression and family support appeared to be positive and there was no correlation with family support. The level of postpartum increases as the women experiences incidents which can cause stresses. Parenting stress is one of the main stresses a woman experiences after delivery and this is related to depression (Jeon, 1990). This is similar to the result of the research conducted by Ahn and Oh (2006) that the variable related to postpartum is parenting stress. Nurturing children causes the woman to be psychologically depressed. The woman feels she is an inappropriate mother which causes difficulties in caring for their children (Jeong et al., 2009). In addition, it has been expected that delivery and parenting will influence the development of family relationship not as an incident of the woman. However, there was no linkage found between family support and depression, which was similar to the result of research conducted by Goh (2009) and Kim & Kim (2008). In contrast the research conducted by Lim (2011) and Cho and Yang (2001) showed negative correlation between partner support and depression hence, there needs to be further research in this area.

Family support has been found to moderate the effect of parenting stress on depression. The depression of immigrant women is affected by various difficulties they have living in Korea. Especially, the level of depression of immigrant wives can increase due to rapid changes in environment and loss of their basis. Therefore, family support is important to them (Nam & Ahn, 2011). In addition family support can prevent de-

pression, even if the immigrant women are overstressed by parenting. The primary living space of the majority of immigrant wives is their families and their husbands. Husbands are the most important supporters of the wives when they have difficulties. According to Seong (2009), Husbands and family members are the primary supporters of the wives. Hence, there needs to be further research on family members as an important element for fostering support for the wives.

CONCLUSION

This research has been conducted on immigrant women to investigate the degree and linkage between parenting stress, depression and family support. And whether family support plays a role as moderating variable in relationship between parenting stress and depression has been examined. The result of this research showed that immigrant women are stressed parenting their children and increased parenting stress can cause depression. However, family support provided to immigrant women appeared to moderate the effect of parenting stress on depression. Finally, it may be hard for immigrant wives to receive support from other people as they lack a social network and family support. These are important elements for them. Hence, education or other programs are needed to understand and help the immigrant women.

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