Relationship between Social Support and Maternal-Fetal Attachment among Unmarried Pregnant Women in Korea: The Mediating Effects of Self-esteem

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Abstract. This study aimed to examine the association between social support and maternal-fetal attachment and to explore the mediating effect of self-esteem in this relationship among unmarried pregnant women in Korea. The data were collected from 105 Korean unmarried pregnant women who were residents in 15 welfare facilities. Social support, self-esteem and maternal-fetal attachment were assessed using structured questionnaires. The mediating effect of self-esteem was analyzed using linear regressions and the Sobel test. Self-esteem partially mediated the relationship between social support and maternal-fetal attachment. The evidence from this study suggests that interventions focusing on both social support and self-esteem might be more useful than interventions only targeting either of them in increasing maternal-fetal attachment in this population.

Keywords: Social support, Attachment, Unmarried mothers

1 Introduction

1.1 Background

Korean society is facing an increase in number of single mothers. According to one-parent family formation factor studies, number of single mother constantly grew from 7,774(2007), 9,959(2011) and the 2013 data shows more than 13,000 single mothers [1].
Maternal fetal attachment (MFA) is defined as the mothers' emotions, perceptions and behaviors that are related to the fetus. This behavior of attachment signifies the beginning of mother-child interaction and the maternal role attainment [2]. MFA is also reported to have influence on the fetus’s brain development, autonomic nerve system and ability to cope with maternal–enfant attachment after delivery[4].

Unmarried pregnant women is highly vulnerable population having difficulties to experience adequate MFA. That is presumed that unmarried pregnant women are negatively viewed upon to have a messy sex life in our society there by these women lack support from family and society. On top of that, self-hatred from unexpected pregnancy and low self-esteem can be related with difficulty to have MFA[5].

Some studies identify that social support and self-esteem can have effect on the MFA[6,7] but less is known about the role of self-esteem in relation to social support and MFA in unmarried pregnant women.

Therefore, this study will verify mediated effects of self-esteem in relation to social support and self-esteem so this study can be used as a base line data for intervention researches targeted for unmarried pregnant women, promoting MFA through self-esteem improvement.

1.2 Purpose

To examine the association between social support and MFA and to explore the mediating effect of self-esteem in this relationship among unmarried pregnant women.

2 Methods

2.1 Study Design

This study was a descriptive and cross-sectional design using a self-reported questionnaire.

2.2 Participants and Data collection

The participants were 105 unmarried pregnant women receiving shelter services from 15 facilities for unmarried mothers in Korea. The inclusion criteria were pregnant women during their 24th to 38th week of pregnancy and agreement to participate in this study. The exclusion criteria were an presence of chronic disease and any symptoms of pregnancy induced disease. 200 questionnaire with informed consent sheets were mailed to all the 33 facilities of Korea. And then 112 completed questionnaire from 15 facilities were returned in a sealed envelope to the researcher(response rate of 56.0%). Seven questionnaire with missing data were dropped.
2.3 Participants and Data collection

Social support

Social support was measured using the Social Support Inventory developed by Moon[8]. This instrument consisted of 16-items rated on a 5-point Likert scale with higher scores indicating a higher perceived social support by participants. Internal consistency reliability (Cronbach's $\alpha=.93$) and content validity were established for use in Korean unmarried mothers[8]. This study also showed good internal consistency reliability (Cronbach's $\alpha=.99$).

Self-esteem

Self-esteem was measured by Rosenberg’s[9] widely used 10-item instrument, using a 1-to-4-point rating for each item. The possible range was 10 to 40 with a higher score indicating higher self-esteem. This study showed good internal consistency reliability (Cronbach's $\alpha=.80$) for this instrument. The Self-esteem used in this study validated in Korea[10].

Maternal -fetal attachment(MFA)

MFA were measured using Cranley’s[2] scale. This scale were translated into Korean by Park[11]. This instrument consisted of 23-items rated on a 4-point Likert scale with higher scores indicating a higher maternal fetal attachment behavior. This study showed good internal consistency reliability (Cronbach's $\alpha=.91$) for this instrument.

2.4 Data Analysis

The data were analyzed with SPSS software(version 20; IBM Corporation, Armonk, NY, USA). Descriptive statistics such as frequency, mean and standard deviation were used to describe the general and obstetrics characteristics and major variables for this study. Pearson correlation coefficients were used to identify the relationship between MFA and influencing variables. Stepwise multiple regression analysis was used to test for mediating effects of self-esteem in the relationship between social support and MFA. And the Sobel test was used to evaluate the statistical significance of the meditating effect.

3 Result

Self-esteem partially mediated the relationship between social support and MFA. It means that social support had a direct effects on MFA and indirect effect through self-esteem. Sobel test confirmed the statistical significance of this mediating effect($Z=2.35$, $p<.02$).
Table 1. Mediating Effects of Self-esteem

(N=105)

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<th>Social support → Self-esteem</th>
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</table>

Fig. 1. Mediating effect of self-esteem in the relationship between social support and MFA

4 Conclusions

From the results, it is concluded that self-esteem partially mediated the relationship between social support and MFA. The evidence from this study suggests that interventions focusing on both social support and self-esteem might be more useful than interventions only targeting either of them in increasing MFA in this population.
References