

The Role of Self-Esteem and Marital Relationship on Women's Depression I

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Marital relationship has been shown to be consistently related to women's depressive symptomatology. The purpose of this study was to delineate the role of self-esteem and marital relationship in the development of depression. It was hypothesized that both good marital relationship and high self-esteem protect women from depressive symptomatology. Two-hundred and seventy five women were recruited from 4 private obstetrics and gynecology clinics and 2 university hospitals. The Beck Depression Inventory (BDI), the Dyadic Adjustment Scale(DAS), and the Rosenberg's Self-Esteem Scale(SE) were used. At the first stage of analysis, we divided the subjects into four groups -high DAS/high SE, high DAS/low SE, low DAS/high SE, and low DAS/low SE- and examined the differences in depressive symptomatology among them. It was demonstrated that the groups with either satisfying marital relationship or high self-esteem had lower rate of depressives. At the second stage, DAS was factor analyzed using Maximum Likelihood, varimax rotation. Four factors- dyadic consensus, dyadic satisfaction, dyadic cohesion and dyadic activity- emerged. Finally, Baron and Kenny's test of mediation was utilized to find out whether the effects of factor analytically derived subscales of DAS were mediated or moderated by self-esteem in predicting depressive symptomatology. Results indicated that dyadic consensus was mediated by self-esteem and dyadic satisfaction had a rather direct effect on depression.

Korean society has undergone dramatic changes in the process of rapid industrialization and urbanization. The Korean family was no exception. Large extended family units have been partitioned into smaller

nuclear family units. Traditional values such as filial piety and familism have been diluted by Western values of individualism, self-reliance, and independence. Although emphasis on hierarchical relationship

still persists, the patriarchal dominance has been relatively weakened. Conflicts occur when some family members adhere to the traditional values based on hierarchical authorities while the others strongly demand for equal relationships and new role specifications. Many Korean families suffer from marital discord and friction between generations, which are evidenced by spiraling divorce rates and high prevalence rates of adolescent psychiatric problems.

A close dyadic relationship is the foundation of a healthy family system. However, the dyadic relationship was regarded as secondary to the pivotal father-son relationship in the traditional Korean family. Empirical investigations of marital adjustment has been neglected relative to other areas of family studies. More attention should be directed to specifying factors of marital discord and its detrimental effects on mental health of the family members. In this study, we focused on the relationship between dyadic adjustment and depression of married women.

In several community based studies, the association between marital discord and depressive symptomatology has been consistently demonstrated. The correlation coefficients ranged from .35 to .40(Renne, 1970; Weiss & Aved, 1978). Weissman(1987), in the best community survey data collected to date, reported that men and women with marital discord have 25 fold increase in the risk of major depression. In addition, 45% of the women who reported not getting along with their spouses were found to have met criteria for affective disorder in the 6-month period preceding the assessment. Similarly, Schless, Schwartz, Goetz, and Mendels(1974) found that depressed patients reported feeling particularly vulnerable to marriage-and family-related stresses, a feeling that persisted even after the patients had recovered from depression. Beach, Winters, Weintraub, and Neale (1983) reported that 84% of the depressed patient

sample showed a negative marital course following hospital discharge, even up to four years. These investigations indicate, not only that disturbed marital relationships are the concomitants of depression, but that they may also precede and follow depressive episodes.

These results provided the foundation for the next generation of studies probing into the link between marital discord and depressive symptomatology. One important line of investigation has focused on the interaction patterns of depressed women and their spouses in order to delve into the potential etiological role of marital relationship on depression. A series of observational studies have noticed that the interactions of couples with a depressed spouse were characterized by hostility, negative affect, and negative appraisals of their spouse's behaviors(Biglian, Hops, Sherman, Friedman, Arthur, & Osteen, 1985; Gotlib & Whiffen, 1989; Hautzinger, Linden, & Hoffman, 1982). Schmalting & Jacobson(1990) separated dysfunctional marital interaction patterns unique to depression from those that are generally associated with marital distress by using four groups (2 depression level x 2 marital satisfaction level) of subject couples. Results indicated that negative affect, along with aggressive statements, discriminated between happy and unhappy couples but not between depressed and nondepressed couples. Findings suggested that marital distress rather than depression per se may be responsible for the dysfunctional interaction patterns frequently observed in depressed couples.

The other line of investigation has replicated and extended earlier findings using a prospective design and refined measurements. Brown, Andrews, Harris, Adler, and Bridge's study(1986) is a good example in this respect. They conducted a prospective study of 400 working-class women to predict the risk of

depression in the following year. Instead of using paper and pencil self-report measures, they utilized a 3- to 5-hour semi-structured interview in order to assess self-esteem and social support. Their results indicated that the combined presence of low self-esteem and negative interaction with husband or children at the first interview was associated with a great increase in the risk of subsequent depression once a severe stressful life event occurred. Lack of support from a core tie (a husband, lover, or confidant) at the time of the crisis, in particular, was robustly linked to the increased risk. These results highlighted the importance of social support (or dyadic support, in a narrow sense) in the onset of depression. It has also proved that it is necessary to pay attention to woman's low self-esteem in explaining the onset of depression.

Investigators noted the necessity of pointing out the correlates of marital discord and depression in order to broaden our understanding of their interplay. Beach and O'Leary (1993) assessed 241 couples prior to marriage and at 6 and 18 months after marriage to examine the moderating role of two personality variables, high negative affectivity and low positive affectivity. They hypothesized that the combination of high negative affectivity and low positive affectivity should create a vulnerability specific to depressive symptomatology. Results demonstrated that marital satisfaction was predictive of later depressive symptomatology for all spouses even after initial level of depression is controlled. A chronically dysphoric group however was found to be more reactive to changes in marital adjustment. In their attempt to identify moderating variables, Culp and Beach (1993) investigated the role of self-esteem in different gender. They found out that self-esteem mediated (i.e. accounted for) between marital satisfaction and depression for women, but moderated (i.e. interacted

with marital adjustment) for men. Therefore, women's self-esteem was dependent upon marital variables, and thus self-esteem in turn affected depression, while men's self-esteem and marital adjustment interacted in explaining the depressive symptomatology. In other words, positive self-esteem would not buffer the negative outcomes of poor spousal relationship for women while men's positive self-esteem would play a protecting role.

These studies converge to suggest the important role of self-esteem in the relationship between marital adjustment and depression. Most of the studies, however, used a global measure of marital relationship and it still remains to investigate what aspects of marital adjustment interact with self-esteem in explaining the increased risk of depression. For example, in Brown and his colleagues' study (1986, 1990), global quality of marital relationship was rated by the interviewer through inquiry about their argument, strain, violence, and indifference. In Culp and Beach's study (1993), a 6-item global measure of marital quality was used along with the measure of the perceived marital support. In Beach and O'Leary (1993), the Short Marital Adjustment Test was used to assess global marital relationship adjustment.

The purpose of our study was to untangle the complex interplay of self-esteem and different aspects of marital adjustment with regard to depressive symptomatology of Korean women. We sought answers for the following two questions. First, what aspects of marital adjustment are critical in explaining depressive symptomatology of Korean women? Second, what specific aspects of marital adjustment interacts with self-esteem in explaining depressive symptomatology?

Method

Participants

The current study was part of a large project on postpartum depression. Two hundred and seventy-five pregnant women over 18 years of age within their second trimester of pregnancy were recruited from 2 university hospitals and 4 private obstetrics and gynecology clinics. All participants were approached and solicited to participate in the study by one of the investigators while they were waiting to see the doctor. The participants had mean age of 27.9 years and all were married.

Measures

Beck Depression Inventory(BDI). The BDI(Beck, 1972) is one of the most widely used measure of depressive symptomatology, consisting of 21 items, each corresponding to a specific category of depressive symptoms. In this study, we used BDI which was translated by Lee & Song(1991). The Korean BDI has been shown to have good reliability and validity(Lee & Song, 1991; Shin, Kim, & Park, 1993).

Dyadic Adjustment Scale(DAS). The Dyadic Adjustment Scale (Spanier, 1976) was used to measure marital adjustment between dyads. In our study we used the Korean version of DAS which was translated by Lee and Kim(1995). It consists of 32 items which assess various aspects of marriage, such as communication, affection, social activities, and value differences. According to Lee and Kim(1995), Cronbach's alpha of the Korean DAS was .95.

Rosenberg's Self-Esteem Scale(SE). The Rosenberg's

Self-Esteem Scale (Rosenberg, 1965) is a well-validated reliable measure of global self-evaluations. We used the Korean SE, which was translated by Kim(1988). It consists of 10 statements on which subjects are asked to indicate on a 5-point Likert scale(1=strongly disagree, 5=strongly agree) the extent to which they agree with each self-evaluative statements. Cronbach's alpha was .78 in our study.

Results

The analyses proceeded in four stages. First, the percentages of the depressives and nondepressives were determined in 4 groups of women(High or low marital adjustment x high or low self-esteem), divided by using each mean score of Dyadic Adjustment Scale(DAS) and Rosenberg's Self-Esteem Scale(SE) as the cutoff score. Second, multiple regression analysis was conducted to find out the relative effect of three variables(DAS, SE, DAS x SE) on depression. Third, Dyadic Adjustment Scale was factor analyzed. Finally, Baron and Kenny's statistical tests were utilized to determine whether self-esteem and subscales of DAS played the role as a mediator or a moderator.

1. Descriptive Data

Means, standard deviations, and correlation coefficients of the variables are shown in Table 1.

In this study a cutoff score of 16 on the Beck Depression Inventory(BDI) was used, since this score reflects a moderate level of depressive symptomatology and has been reported to discriminate 77% of depressives correctly in a Korean community sample (Shin, Kim, & Park, 1993). Results indicated that 12.2%(n=33) of 270 pregnant women were depressed.

Table 1. Means, Standard deviations, and Correlation Coefficients of the BDI, DAS, and SE.

	BDI	DAS	SE
BDI			
DAS	-.427**		
SE	-.442**	.420	
Mean	9.16	111.19	35.19
SD	5.68	14.52	6.16

*p < .05. **p < .01. ***p < .001

The mean scores of the variables in non-depressed and depressed groups are listed in Table 2.

The total sample was divided into four groups and the percentages of depressed women were counted in each group, using the mean of DAS and SE as the cutoff score: Group I; high DAS/high SE, Group II; high DAS/low SE, Group III; low DAS/high SE Group IV; low DAS/low SE. As illustrated in Figure I, group IV showed the highest rate of depressives

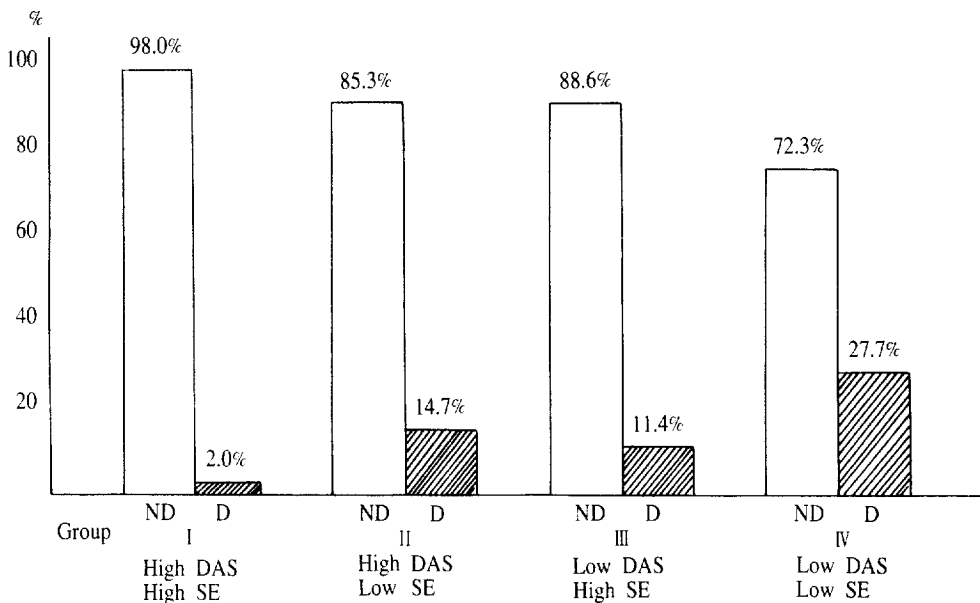
Table 2. Mean Scores of the BDI, DAS, and SE in Not Depressed and Depressed Groups.

	Not Depressed		Depressed	
	M.	SD	M	SD
BDI	7.73	3.77	20.36	4.29
DAS	112.81	13.72	99.24	15.20
SE	35.88	5.90	30.09	6.00

(18/65, 27.7%) among four groups and group I had the lowest rate(2/101, 2.0%).

2. Examining the Role of Marital Relationship and Self-esteem on Depression

In order to examine which of the three variables (DAS, SE, DAS x SE) contribute significantly to explaining depressive symptomatology, the BDI score was regressed on these variables. As a result, only the interaction term was significant, accounting for



Note: ND - Nondepressives, D - Depressives, DAS - Dyadic Adjustment Scale, SE - Self-Esteem

Figure 1. Percentages of Depressives and Nondepressives

26% of the variance. It means that women with low self-esteem depends on their quality of marital adjustment in order to be depressed. Similarly, women with poor marital adjustment, whether they get depressed or not depends on their level of self-esteem. Comparing group I and II, both groups have high DAS, but having low self-esteem increased the rate of depressives (see Figure 1). Also comparing group II and IV, both groups have low self-esteem, but having good marital relationship seemed to prevent women from depression.

These findings confirm the results of Brown and his colleagues (1990) in which married women having both negative environmental factor (negative interaction with husband, children) and negative psychological factor (low self-esteem) were shown to be vulnerable to depressive symptomatology when a severe stressful life event had occurred. In their study, only 23% of the total women had both negative factors, but 75% of the onsets comprised this small group. Our result also indicated that the combined presence of low self-esteem and negative marital interaction made women more susceptible to depressive symptomatology.

3. Specifying Components of Dyadic Adjustment in Korean Women

To specify which aspects of marital adjustment interact with self-esteem, DAS was factor analyzed. Spanier (1976) suggested the existence of four empirically verified components of dyadic adjustment which can be used as subscales. Those subscales were dyadic satisfaction, dyadic cohesion, dyadic consensus and affectional expression (Spanier, 1976). As the concept of marital adjustment can vary from culture to culture, the construct validity of the Korean DAS needs to be established through factor analysis

Using Maximum Likelihood (ML) and Varimax rotation, we extracted four factors. Two items were deleted since their item-total correlations were low. The deleted items were, "Agreement or disagreement about religious matters", and "Choose the statement that best describes how you feel about the future of your relationship". Item-total correlations were .08 and .24. Consequently, out of 30 items, the following four factors emerged; dyadic consensus, dyadic satisfaction, dyadic cohesion and dyadic activity. The first three factors were the same as Spanier's, but a new fourth factor emerged which was named as 'dyadic activity' because all the items in the fourth factor were related to the amount of time and common activities that couple spend and do together. Results of the factor analysis are shown at Table 3.

Cronbach's alphas were generated to assess internal consistency of the subscales derived. Cronbach's alphas for dyadic consensus, dyadic satisfaction, dyadic cohesion and dyadic activity were .82, .80, .86, and .73 respectively.

4. Testing the Mediation and Moderational Hypotheses

In order to find out the relationship between SE and subscales of DAS, Baron and Kenny's (1986) statistical tests were conducted to determine which variable played the role of a mediator or a moderator. According to Baron & Kenny, three regression equations must be estimated to test for mediation: first, the mediator is regressed on all the independent variables to determine if any independent variable could account for significant unique variance in mediator variable; second, the dependent variable is regressed on all the independent variables; and third, the dependent variable is regressed on both the mediator and the independent variable. To be

Table 3. Factor Analysis of Dyadic Adjustment Scale.

Items	Dyadic Consensus	Dyadic Satisfaction	Dyadic Cohesion	Dyadic Activity
<u>* Agreement or disagreement about</u>				
handling family finances	.38	.37	.02	.07
matters of recreation	.33	.06	.05	.58
demonstration of affection	.45	.17	.16	.25
friends	.43	.07	.04	.24
sex relations	.49	.12	.02	.25
conventionality	.62	.16	.11	.08
philosophy of life	.68	.09	.11	.11
ways of dealing with parents49	.12	.02	.25
aims, goals55	.21	.26	.06
amount of time spent together	.13	.14	.15	.39
making major decisions	.49	.29	.12	.12
household tasks	.17	.23	.10	.39
leisure time interests and activities	.18	.07	.02	.92
career decisions	.40	.24	.07	.17
<u>* How often do you (and your mate)</u>				
ddiscuss or consider separation...	.05	.63	.07	.10
leave the house after fight	.15	.46	.13	-.003
think things are going on well	.35	.53	.16	.06
confide in your mate	.34	.54	.18	.07
regret having married	.20	.50	.17	.18
quarrel	.15	.50	.03	.09
get on each other's nerves	.11	.51	.02	.18
kiss your mate	.17	.31	.23	.25
engage in outside interests together	.13	.20	.31	.53
<u>*How often do you (and your mate)</u>				
have stimulating exchange of ideas	.17	.27	.68	.15
laugh together	.18	.36	.44	.16
calmly discuss something	.17	.07	.93	.07
work together on a project	.12	.10	.82	.16
<u>* Differences of opinions in ...</u>				
being too tired for sex	.28			
not showing love	.10			
<u>* Circle the dot which best describes the degrees of happiness of your relationship.</u>				
λ	6.68	1.79	1.92	1.13
explained variance(%)	23	6.2	6.6	3.9

Table 4. Regression analyses for testing mediational hypotheses.

Mediator	Equations	Equation I (DV: mediator IV: predictors ^b)	Equation II (DV: BDI IV: predictors ^b)	Equation III (DV: BDI IV: mediator + predictors ^b)	Conclusions drawn from three equations
Self-Esteem		1. CON (R ² =.17) 2. SAT (R ² =.19)	1. SAT (R ² =.18) 2. CON (R ² =.21)	1. SE (R ² =.19) 2. SAT (R ² =.28)	→ CON→SE→BDI
Dyadic Consensus		1. ACT (R ² =.30) 2. SAT (R ² =.40) 3. SE (R ² =.43) 4. COH (R ² =.44)	1. SE (R ² =.19) 2. SAT (R ² =.28)	1. SE (R ² =.19) 2. SAT (R ² =.28)	→ CON: non-mediator
Dyadic Satisfaction		1. CON (R ² =.27) 2. COH (R ² =.34) 3. ACT (R ² =.36) 4. SE (R ² =.37)	1. SE (R ² =.19) 2. CON (R ² =.24)	1. SE (R ² =.19) 2. SAT (R ² =.28)	→ CON→SAT→BDI
Dyadic Cohesion		1. SAT (R ² =.20) 2. ACT (R ² =.24) 3. CON (R ² =.26)	1. SE (R ² =.19) 2. SAT (R ² =.28)	1. SE (R ² =.19) 2. SAT (R ² =.28)	→ COH: non-mediator
Dyadic Activity		1. CON (R ² =.30) 2. SAT (R ² =.34) 3. COH (R ² =.35)	1. SE (R ² =.19) 2. SAT (R ² =.28)	1. SE (R ² =.19) 2. SAT (R ² =.28)	→ ACT: non-mediator

Note. DV: Dependent Variables IV: Independent Variables SE: Self-Esteem CON: Dyadic Consensus SAT: Dyadic Satisfaction COH: Dyadic Cohesion ACT: Dyadic Activity

a Mediator

b Among five independent variables, four variables(excluding the mediator) were included in the analysis as predictors.

confirmed as a mediator, the independent variable which could account for the significant unique variance of the mediator(1st equation) should become non-significant in explaining dependent variable when the mediator enters the regression equation(3rd equation), while the independent variable should account for significant variance of dependent variable without the mediator variable(2nd equation).

As can be seen in Table 4, women's self-esteem turned out to mediate the effects of dyadic consensus on predicting depressive symptomatology. Also, the third set of equations showed that dyadic satisfaction mediates the relationship between dyadic consensus

and depression. The remaining three variables - dyadic consensus, dyadic cohesion, and dyadic activity - turned out to have no mediating effect on predicting depressive symptomatology.

The relationship between depression and dyadic consensus was shown to be mediated by both self-esteem and dyadic satisfaction. At the same time, self-esteem and dyadic satisfaction have a rather direct effect on depression. This relationship can be drawn as Figure 2.

To specify the interrelationship between self-esteem and dyadic satisfaction, we postulated both variables as a moderator. In order to test the moderational

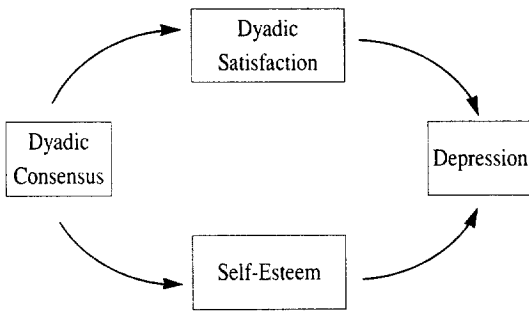


Figure 2. The mediational role of self-esteem.

hypothesis(Baron & Kenny, 1986), the dependent variable should be regressed on the independent variables, the moderator, and their interaction terms. If the interaction term turns out to be significant in explaining the equation, then we can say that the amount of variance explained by the independent variable depends of the level of the moderating variable. The results of the tests are shown in Table 5.

Table 5. Regression Analyses for Testing the Moderational Hypothesis

Moderator	Multiple Regression Analysis	Results
Self-Esteem	DV=BDI	1. SE * SAT
	IV=SE, CON, SAT, COH, ACT	R ² = .26 p=.00
	SE*CON, SE*SAT,	2. CON
	SE*COH, SE*ACT	R ² = .28 p=.03
Dyadic Satisfaction	DV=BDI	1. SAT * SE
	IV=SE, CON, SAT, COH, ACT	R ² = .26 p=.00
	SAT*SE, SAT*CON	2. CON
	SAT*COH, SAT*ACT	R ² = .28 p=.03

Note. DV: Dependent Variables IV: Independent Variables
 SE: Self-Esteem CON: Dyadic Consensus SAT:
 Dyadic Satisfaction COH: Dyadic Cohesion ACT:
 Dyadic Activity

Our results demonstrated that the effects of dyadic satisfaction is moderated by the level of self-esteem,

and vice versa. In order to find out whether the effect of dyadic satisfaction on depression depends on the level of self-esteem, subjects were divided into two groups using the mean cutoff score of self-esteem, and zero-order correlations between dyadic satisfaction and depression were calculated. Accordingly, high self-esteem group showed $r = -.38$ ($p < .000$) and low self-esteem group showed $r = -.34$ ($p < .000$). The difference between the two correlation coefficients was not significant.

Next, we divided the subjects again, by using the mean cutoff score of dyadic satisfaction to find out whether its level differentiated the effects of self-esteem on depressive symptomatology. Results indicated that in high marital satisfaction group, the correlation coefficient between self-esteem and depression was $-.32$ ($p < .000$), while $-.42$ ($p < .000$) in low marital satisfaction group. The difference between the two correlations, however, turned out to be non-significant.

Since the level of the hypothesized moderator (either self-esteem or dyadic satisfaction) did not significantly differentiate the independent variable's effect on depressive symptomatology and the correlational differences were not significant, the two variables cannot be confirmed fully as the moderators. However, the interaction term of self-esteem and

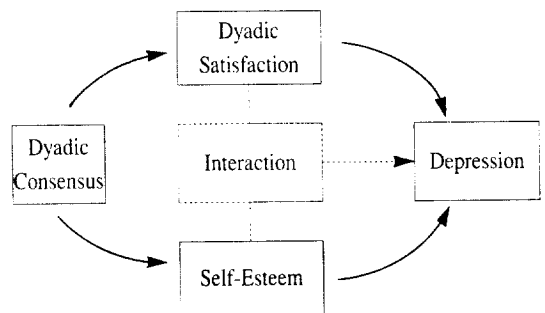


Figure 3. The moderational role of self-esteem.

dyadic satisfaction was significant according to the multiple regression analysis. These findings indicated that self-esteem and dyadic satisfaction played the role of a moderator to some extent and that their interaction was important in explaining depression. The results can be drawn as figure 3.

Discussion

The purpose of our study was to find out how Korean women's marital satisfaction and self-esteem interact in explaining depressive symptomatology. Our results were in line with the previous research assuming both marital variables and self-esteem as important vulnerability factors of depressive symptomatology (Brown et al, 1990; Culp & Beach, 1993). We extended earlier findings and specified which aspects of marital relationship interacted with self-esteem in explaining depression. Some interesting findings were obtained in our study. Not only was marital adjustment important as a whole in predicting women's depression by interacting with self-esteem, but also different aspects of marital adjustment acted differently in their interaction with self-esteem in its impact on depression. On the one hand, dyadic consensus, a cognitive aspect of marital adjustment, was shown to have no direct effect on depressive symptomatology but its relationship with depressive symptomatology was mediated by self-esteem. On the other hand, dyadic satisfaction, a strong emotional component was found to play an important role in predicting depression by itself and by interacting with self-esteem.

In our study, the role of self-esteem has been shown to act as a mediator and a moderator of the relationship between marital adjustment and depression depending on different aspects of marital

adjustment. This is different from that of Culp and Beach (1993), in which self-esteem played only the role of a mediator. In their study, marital satisfaction was found to exert its effect on depression by influencing women's level of self-esteem. We suspect that the discrepancy resulted from using different marital variables. Culp and Beach(1993) focused on supportive aspects of marital relationship and examined variables of marital satisfaction, intimacy, cohesion, and self-esteem support. Our study, by contrast, examined various aspects of marital adjustment, that is dyadic consensus, dyadic satisfaction, dyadic cohesion and dyadic activity.

Differences in samples could also have affected the results. Further replication is warranted in order to identify what caused the discrepancy in the results.

Our findings suggest that lack of dyadic consensus may erode women's self-esteem and that low self-esteem, in turn, may increase their level of depressive symptomatology. Self-esteem could somewhat serve to buffer the effects of marital dissatisfaction although the effects of marital dissatisfaction on depression do not depend totally on the self-esteem level.

There are few limitations in the present study that should be noted. First, this study is cross-sectional rather than longitudinal, which limits the extent to which we can use our finding to infer direction of causality. These results will be replicated and examined after we complete our prospective study on postpartum depression. Second, since all our participants were young pregnant women with mean age under 30, we should be careful in generalizing these results to non-pregnant and/or older women. Finally, we used only self-report measures in collecting the data. Therefore, our results should be replicated in future studies using various measures including interviews.

Our results have important clinical implications in intervening couples. When working with depressed wives, clinicians need to pay close attention to their level of self-esteem. It seems to be critical to consider women's level of self-esteem in determining the effects of marital relationship on depressive symptomatology. Strategies to promote marital satisfaction including couple therapy should be actively utilized in treating women's depression.

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