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Running Head: Social Support Behaviors of Newlywed Dyads

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Abstract

Interpersonal theories of depression suggest that behaviors of an individual, and others in the environment, serve to elicit and/or maintain depressive symptomatology. The present study examined the association between depressive symptomatology and social support behaviors in marriage. It was hypothesized that as depressive symptomatology increased, there would be a decrease in positive social support behaviors and an increase in negative support behaviors. Participants were 172 newlywed couples recruited through public records. Couples completed questionnaires assessing depressive symptomatology and marital satisfaction and participated in 2 social support interactions which were coded using a microanalytic coding system. Results indicated that as depressive symptomatology increases, helpers and helpees give more negative and less positive responses. When effects of marital satisfaction are extracted, depressive symptoms do not predict behavior. Further examination revealed that depressive symptomatology and marital satisfaction together are predictive of behavior, while neither variable alone gives significant information. Future research clarifying the relationship between marital distress, depression, and social support is recommended.

Social Support Behaviors of Newlywed Dyads as a Function of Depressive Symptomatology

Numerous theories seek to explain the etiology and maintenance of depression. Major theories include genetic, biochemical, neurochemical, cognitive, cultural, and interpersonal models of depression. The interpersonal models have recently gained support. They suggest that behaviors of the individual, and others in the social environment, serve to elicit and/or maintain depressive symptomatology. A particular focus of this research is the marital relationship. Specifically, it has been proposed that depression and marital distress are interrelated (Becker, 1988). One mechanism contributing to this relationship may be the disruption of social support behaviors. Symptoms of depression may inhibit a couple from providing support, which may have implications for the long-term marital relationship. The purpose of this paper is to examine the association between depressive symptomatology and social support behaviors in marriage. The current study seeks to extend the depression and social support literature by proposing a behavioral analysis of social support behaviors occuring in newlywed marriage. To orient the reader, four interpersonal theories of depression are presented followed by a discussion of social support and its relationship to depression.

Interpersonal Theories of Depression

Coyne's Interpersonal Theory of Depression

Coyne (1976a) describes the maintenance of depressive symptoms as due to an interactional pattern wherein a depressed person seeks reassurance from a partner in such a way that the partner feels anger towards the depressed person, yet continues to give support.

The depressed person continues to seek reassurance from the partner and the partner reacts with more overt anger. The depressed person, aware of the contradictory messages, is not reassured and the cycle is perpetuated.

Research has employed hypothetical, videotaped, stranger, and spousal interactions in order to test Coyne's theory. A review of the literature resulted in the conclusion that the rejection of the depressed person is well supported (Gurtman, 1986; Segrin & Dillard, 1992). Some research had undergraduate students either speak on the telephone with a depressed person or read a description of a depressed person. Results indicated that subjects rejected the depressed persons on measures of willingness to meet them in the future (Coyne, 1976b; Howes & Hokanson, 1979). In several studies, strangers who interacted in person with a depressed target rejected the possibility of meeting the depressed person in the future (Gotlib & Beatty, 1985; Stephen, Hokanson, & Welker, 1987). When subjects imagined a depressed or nondepressed friend or stranger described in a hypothetical statement, requests from depressed persons elicited more rejection and anger (Sacco, Milana, & Dunn, 1985). When subjects watched a videotape of a depressed person disclosing self-blaming information, it led to more rejection and devaluation of the target than when the target disclosed nondepressive information (Gurtman. 1987).

Studies have also concentrated on behaviors of the depressed person that elicit rejection. In a study by Gotlib and Robinson (1982), depressed and nondepressed college students interacted with other nondepressed college students. The content of the depressed student's speech during conversations included more negative content than the speech of nondepressed students. Also, depressed spouses interacting on a conflict resolution task rated

themselves as more aggressive, less constructive, and more withdrawing (Kahn, Coyne, & Margolin, 1985). Thus, research supports the position that depressed persons behave in ways that elicit rejection.

Lewinsohn's Theory of Social Skill Deficit

Lewinsohn (1974) proposed a model of depression based on social skill deficit in the depressed person. This model states that depressed people are deficient in five social skills. According to the theory, depressed persons emit fewer interpersonal behaviors as compared to nondepressed controls, resulting in less activity overall. Second, interactions with a depressed person are less reciprocal in that one individual does much more for the partner than the partner does for him/her. Third, depressed persons are described as having a limited range of individuals with whom they interact. Fourth, depressed persons are found to emit fewer positive reactions than nondepressed persons. Finally, there is more action latency in depressed persons, wherein depressed persons react more slowly to a partner's verbalization (Libet & Lewinsohn, 1973; Lewinsohn, 1974).

Research supports the view that depressed persons have a deficit in social skills. After subjects interacted in a group setting, depressed persons rated themselves as less socially competent than nondepressed controls (Lewinsohn, Mischel, Chaplin, & Barton, 1980). Gotlib and Robinson (1982) report finding low social skills in depressed targets in the form of fewer statements of direct support, more negative statements, and less smiling. Vanger (1987) found that depressed patients and social skills trainees had the same degree of difficulty in social settings. In addition, Wierzbicki (1984) found that when the current level of depression is controlled, measures of social skill increase the predictability of the level of depression two

months later. Therefore, it is well-documented that depressed persons are lacking in social skills.

Coercion Theory

An interpersonal theory of depression based on coercion is taken from social reinforcement theory, as described by Patterson and Reid (1970). Citing evidence that family members often reinforce deviant behavior, the authors explain that when a person behaves aversively to obtain something, the partner complies with the demand. This results in the withdrawal of the aversive behavior. The withdrawal of the aversive behavior is a negative reinforcer for the partner who complied. In the future, the partner will continue to comply with the demands of the person. Similarly, the person will continue to act aversively because the compliance of the partner is a positive reinforcer. The original description of this theory employed examples of interactions between parents and children. The theory has since been utilized to explain many different types of family interaction, such as those concerning the maintenance of depressive symptoms.

Coercion theory, as it relates to depression, hypothesizes that the symptoms of a depressed person are aversive to a partner. To avoid the depressive symptoms, the partner withdraws his/her demands of the depressed person. In a study by Biglan et al. (1985) husbands, with or without a depressed wife, were videotaped while interacting with their wives for 10 minutes on a problem-solving task. Behavior coded as depressive consisted of self-derogations, physical or psychological complaints, ignoring the spouse, and exhibiting negative affect. The husband's responses to the depressed wife's behavior indicated that "depressive behavior is functional in reducing the aversive behavior of others"(p.445).

Spouses with a depressed partner expressed more aggression than spouses with a nondepressed partner. However, there was a greater reduction in the husband's aggression in response to the wife's depressive behavior than in couples without a depressed partner. These findings are consistent with coercion theory in that when the nondepressed partner reduces his/her aggressive behavior in response to a depressed spouse's depressive behavior, the depressed spouse is rewarded for his/her depressive behavior.

Marital Distress

The final interpersonal theory to be discussed illustrates the importance of marital discord on the emotional well-being of spouses. As a theory, the marital discord model has developed over time as evidence accumulated indicating that variables in the spousal relationship, such as social isolation and marital discord, are related to depressive symptomatology in married adults (Beach, Arias, & O'Leary. 1986). A strong cross-sectional association between depression and marital discord is well-documented. For instance, in one population the risk of a major depressive episode was 25 times higher if the person's marital relationship was distressed rather than nondistressed (Weissman, 1987). Further, research supports an etiological role of marital distress in depression. In a review of affective disorders and marital distress, Weiss and Heyman (1990) state that "evidence from longitudinal studies supports the hypothesis that marital distress strongly contributes to the development of depression, rather than the other way around"(p.480). The same review states that while some factors concerning the effect of marital distress on depression have been identified, the exact mechanisms of how marital distress increases the vulnerability to depression is not yet fully understood. Thus, according to research, marital distress is not

only related to depression, but is etiologically significant in the development of depression among married individuals.

Summary

Overall, the four interpersonal theories characterize the interactions between depressed individuals and their partners as disrupted by negative interactions. Throughout the literature there is ample evidence that the depressed person interacts more aggressively, less constructively, withdraws more (Kahn, Coyne, & Margolin, 1985; Biglan et al., 1985), uses more negative content (Gotlib & Robinson, 1982), exhibits fewer positive reactions, is less active, and reacts slowly to a partner (Libet & Lewinsohn, 1973). All of these behaviors can be classified as aversive or negative. It is well-documented that a partner interacting with a depressed person rejects the depressed person (Gurtman, 1986), experiences anger (Sacco, Milana, & Dunn, 1985), devalues the depressed person (Gurtman, 1987), is more aggressive (Biglan et al., 1985), and gives the depressed person more support as well as more negative comments (Howes & Hokanson, 1979). These responses to the depressed person are largely negative and are thought to maintain the depressive symptoms by perpetuating a cycle of destructive interactions (Coyne, 1976a; Patterson & Reid, 1970). The literature on marital distress suggests that these behaviors may be important to study in the context of marriage as marital distress is likely to have implications for depression (Beach, Arias, & O'Leary, 1986).

Limitations of Current Research on Interpersonal Theories of Depression

There are some criticisms of the methodology identified in the literature which create difficulties in the generalizability of results to married persons. For instance, several authors critique the frequent use of strangers in much of the early literature, including Segrin and

Dillard (1992), Cole and Milstead (1989), Sacco, Milana, and Dunn (1985), and Becker (1988). Each of the preceding authors indicate that close relationships are necessary for understanding how a person who spends time with a depressed person voluntarily, and has a close connection with the person, reacts to the depressive symptoms. An alternative method, using married persons, was employed to deal with this problem, but is also has disadvantages. When subjects are marital dyads who have been together for many years, a confound may exist whereby past experience influences the interactions (Howes, Hokanson, & Lowenstein, 1985; Stephens, Hokanson, & Welker, 1987). Another limitation to much of the research using married persons is the lack of a sample with no marital distress. Schmaling and Jacobson (1990) identify this problem and present research suggesting that marital distress accounts for the differences in the interactions between depressed and nondepressed couples. Finally, the types of tasks used in the research have limitations. The only interpersonal situations studied in the marital context are either general discussions or problem-solving tasks. While important, other interpersonal situations are also significant. One of these is the extent to which the members of a couple can provide each other with support. Social support is now an important focus in marital functioning and depression. Conversely, depression has been proposed to affect social support as well as marital satisfaction. The Stress-Buffering Hypothesis suggests that the way in which a spouse helps a partner with stress may be important in the etiology and/or maintenance of depression (Jackson, 1992). Thus, the exclusive use of conflict resolution tasks limits our ability to understand other types of behaviors in which couples engage that may be important in depression.

The current study was designed to address the limitations presented earlier. First, the

sample consists of newlyweds who do not have years of marriage behind them. The confound due to negative past experiences should be lessened. Second, the sample used in the current study is overall non-maritally distressed. Third, the social support task requires the couple to engage in helping behaviors, rather than conflict resolution. This method will allow us to look at a couple's helping behavior and clarify how social support varies as a function of depressive symptomatology.

Social Support

Recent research illustrates the important role of social support on an individual's well-being. Evidence indicates that measures of social support can predict future levels of depression. In one study, higher satisfaction with marital support corresponded with a lower depressive symptom score one year later for women without symptoms of depression in maritally non-distressed marriages (Monroe, Bromet, Connell, & Steiner, 1986). Billings and Moos (1982) hypothesized that when a stressful event occurs, various processes mediate and influence the response of the individual. These processes include personal and environmental resources, environmental stressors, and appraisal and coping responses. Either the personal resources, or lack thereof, and the aspects of depression itself can influence the availability of the environmental resources. An outcome study conducted by Billings and Moos (1995) found that patient's post-treatment functioning was positively correlated with a higher quality and more extensive set of social resources. In addition, the quality of the support was found to be more important in terms of outcome than the size of the social network. Spouses were found to alleviate the depressive consequences of perceived life strain in a study by Jackson (1992). A positive effect of perceived support was reported, in that the subjects perceived

support was correlated with lowered initial perceptions of the life strain of most problems except physical illness. This evidence suggests that support can help individuals deal with stress as well as influence the situations seen as stressful. A study by Cutrona (1986) found that people who received more helping behaviors experienced less depression following stressful events. Together, these results emphasize the important role of social support as a mediator in the development of depressive symptomatology.

Different types of social support may be responsible for the beneficial effects of social support. Cutrona and Russell (1987) found evidence for the existence of a general support factor differentiated by specific factors. These specific factors include emotional, self-esteem, tangible, and informational aid. Emotional support is described as providing comfort and the feeling of being cared for. Esteem support increases the sense of competence and self-esteem in the person. Tangible aid is seen as instrumental aid, or necessary resources required to deal with a stressful situation. Finally, informational support conveys advice or solution-focused guidance. These various types of support influence coping in the face of stress. It is possible that certain types of social support are responsible for the buffering effect of social support on the development of depression. While the current study cannot determine whether one type of social support is decreased by depression, or vice versa, it can distinguish which types of support correlate with the level of depressive symptoms.

Although much research concentrates on the positive aspects of social support, some attempts at social support fail. Hooley, Orley, and Teasdale (1986) found that high levels of expressed emotion in a spouse predicted relapse for depressed patients. The measure of high expressed emotion was the number of critical comments made during an interview, and was

coded based on voice tone and content. For patients living with a spouse low in expressed emotion, none of the eight patients relapsed. In contrast, 20 of the 31 patients living with a spouse high in expressed emotion relapsed. This suggests that the use of critical comments, while perhaps used as a misguided attempt at aid, is destructive for depressed spouses. Expectations of aid from social support networks are also important for a person's level of depression. Pagel, Erdly, and Becker (1987) reported that when subjects rated their social support networks as having more upsetting aspects as well as judging them as helpful, the subject's level of depression was predicted. This indicates that when an individual expects aid from his/her network, depression increases when those expectations are not met. In other words, people feel bad when they do not receive expected support. These studies suggest that attempts at social support which use criticism, rejection, or result in upsetting events are detrimental to emotional well-being.

Summary

To summarize the discussion thus far, interpersonal behaviors are impaired in depression. Research suggests that interpersonal behaviors are negatively influenced by depression, resulting in the rejection of the depressed person, a deficit in social skill, a cycle of aversive behavior, and marital conflict. Interactions with a depressed individual are disrupted by patterns described as negative, asymmetrical, and aversive. Research in social support emphasizes the connection between interpersonal behaviors and depression in that when people do not receive support the vulnerability to depression increases. Social support may be a mediator in the development of depression, working positively through two mechanisms, a person's perceptions of stress and a person's ability to cope with stress. With

an understanding of the importance of social support and the interpersonal context on the development of depression, the next logical step is to study what aspects of social support increase or decrease with depressive symptoms. A behavioral analysis of couples engaging in a social support task will increase knowledge concerning what types of social support behaviors are prevalent in couples as the level of depressive symptomatology increases.

Hypotheses

Couples will be asked to participate in two 10-minute social support interactions. Within the social support task, one member of a couple proposes a problem that he/she would like to work on. Each member of the couple has an opportunity to request aid and respond to his/her partner's request for aid. From evidence suggesting that social skills are deficient in depressed persons, we expect that individuals with increased depressive symptomatology will be less supportive as helpers to their partners. Therefore, the first two hypotheses are that as depressive symptomatology increases, we expect partners to request aid and respond to a partner's request for aid in a less positive manner. Negative requests for aid would include rejecting help, expecting a partner to take charge, denial of problem, blaming, criticism, making excuses, and negative affect. Negative responses to a partner's request for aid would include criticism, blaming, accusing, withdrawal, pessimism, defensiveness, and negative affect. Lastly, from evidence that partners of depressed spouses reject their depressed partner more overtly over time, the third hypothesis is that the helper's responses will be increasingly negative as the depressive symptomatology of the partner increases. These negative reactions include criticism, blaming, accusing, withdrawal, pessimism, defensiveness, and negative affect. Past research has also indicated that marital satisfaction has played an

important role in both depression and marital behavior (Gotlib & Beach, 1995). Therefore, the association between social support and depression with marital satisfaction will be analyzed.

Method

Participants

The participants were 172 married couples participating in an ongoing longitudinal study of the course and outcome of newlywed marriage. Approval was received from the UCLA Human Subjects Review Board. Addresses of newlyweds were acquired from marriage licenses recently registered in Los Angeles County. The couples were eligible if they were married less than six months, between the ages of 18 and 35 years, had a minimum of 10 years of education, and if it was the first marriage for each member of the couple. Each eligible couple received a letter explaining the study and a self-addressed stamped postcard and were asked to return the postcard if they wished to participate. Of the letters sent, 17.6% of the couples returned the card. Each responding couple was interviewed by telephone in order to verify that each couple met the above inclusionary criteria as well as additional criteria that the couple had no children, was not expecting a child, were living together, and could read and speak English. The first 172 couples that met all criteria and completed a scheduled appointment were included in the sample. Husbands had an average age of 27.6 (SD = 3.9) years, 15.6 (SD = 2.2) years of education, and a gross annual income ranging from $21,000 to 30,000. Wives had an average age of 26.0 (SD = 3.4) years, 16.2 (SD = 2.1) years of education, and a gross annual income ranging from $11,000 to 20,000.

Procedure

Each couple participated in a 3-hour laboratory session, wherein the couple signed a consent form, was interviewed, filled out questionnaires, and was videotaped while engaging in a support task. After completing the questionnaires, each couple engaged in two 10-minute social support interactions, which were videotaped. The experimenter gave the following instructions to the participants, "I would like each of you to choose something that you would like to improve about yourself that does not involve your marriage, such as losing weight, quitting smoking, or developing a particular skill. I am going to ask the two of you to discuss each topic for 10 minutes." After each spouse identified his/her topic, the experimenter explained that "First, I would like both of you to talk about (Anne's) topic, during a second discussion I would like both of you to talk about (John's) topic." The couple was additionally instructed that even though it was one partner's topic, the other partner could respond in any way he/she wanted. The order of the topics was random. Following the interactions, a debriefing was held and the couple was paid $75 for their participation.

Measures

Depressive symptomatology. Each member of the couple completed the Beck Depression Inventory (BDI) as a measure of each person's level of depressive symptomatology. The 21-item BDI is the most commonly used self-report measure of depressive symptomatology and contains questions relating to cognitive and somatic symptoms of depression (Beck, Ward, Mendelson, Mock, & Erbaugh, 1961).

Social support. The Social Support Interaction Coding System was used to code the social support interactions (Bradbury & Pasch, 1992). Within the system, four codes are possible for the "helpee" (the person who chooses the topic and asks for aid), positive,

negative, neutral, and off-task. A positive (PS) "helpee" code occurs, for example, when a spouse offers a clear analysis of the problem, responds to the helper's question with a thoughtful response, or states needs in a useful way. A negative (NG) "helpee" code occurs, for example, when the "helpee" expects the spouse to take charge of the problem, rejects help, needlessly repeats the problem, or denies responsibility for the problem. The neutral (NT) code includes descriptive information about the problem and indistinguishable speech. The off-task (OT) code is used when a spouse talks about issues that are irrelevant to the problem or when a spouse continues to talk about irrelevant material. Six codes are possible for the "Helper" (the spouse who is asked to help), positive instrumental, positive emotional, positive other, negative, neutral, and off-task. A positive instrumental (PI) code is given when, for example, the helping spouse suggests a specific plan of action, offers to assist in a specific way, or suggests a new way of handling the problem. The positive emotional (PE) code is given when the helping spouse, for example, helps to express or clarify feelings about the problem, tries to bolster the spouse's self-esteem, or conveys an understanding of the spouse's concerns and difficulties. The positive other (PO) code is given when the helping spouse, for example, offers a specific analysis of the problem, summarizes what has been said, or assists the spouse in defining the problem. The negative (NG) code is given when the helping spouse criticizes the spouse, spouse's approach to the problem, asks an insulting question, tells spouse what he/she should do to improve the situation, or expresses anger. The criteria for the neutral and off-task codes are the same for both the "helpee" and "helper", as described above. A more complete description of the coding system is located in the Appendix. One code is given to a spouse after each of his/her speech turns.

Three graduate students from UCLA and one graduate student from Loyola Marymount University served as coders. Interrater reliability amongst the four coders was based on 20% of the total number of interactions. The average percent agreement between coders for helpee and helper are presented in Table 1. The reliability is based on the proportion of the total number of codes given for each of the 10 behaviors. Correlation coefficients between coders for each of the 10 behaviors is included.

Marital Satisfaction

Each member of the couple completed the Locke-Wallace (LW) to measure each person's level of marital satisfaction scores. The Locke-Wallace Marital Adjustment Test (MAT; Locke & Wallace, 1959) is a 15-item measure consisting of questions concerning the spouse's global evaluation of the marriage, the amount of agreement across different areas of possible conflict, conflict resolution skills, marital cohesion, and communication. The LW discriminates reliably between maritally nondistressed and distressed spouses and results in a score ranging from 2 to 158 points.

Results

The means and standard deviations of all variables in the analyses are presented in Table 2.

Correlations between BDI scores and Support Behaviors

Pearson correlations were performed to examine the association between BDI and social support behaviors. Analyses for husbands and wives were conducted separately. According to the first hypothesis, as the BDI score of a *helper* increases there should be an increase in the helpers negative behavior and a decrease in positive behaviors. The zero-order

correlations between BDI score and support behaviors for the six helper categories are shown in Table 3. As expected, husbands BDI score was negatively correlated with the Positive Other code and positively associated with the Negative code. Wives BDI score was negatively associated with the Positive Emotional code and positively associated with the Negative code. No other correlations were significant.

The second hypothesis stated that as the BDI score of a *helpee* increases, the behaviors of the helpee should become more negative and less positive. The zero-order correlations between BDI score and support behaviors for the four helpee codes are presented in Table 3. In no case were husbands helpee behaviors significantly correlated with husbands' BDI score. For wives, the zero-order correlations between BDI score and support behaviors indicated a significant negative association between BDI score and the Positive code and a significant positive association between BDI score and the Negative code. The results for the wives indicate that as the BDI increases positive behaviors decrease and negative behaviors increase.

The third hypothesis predicted that as the BDI score of a helpee increases there should be an increase in negative behaviors by the *helper*. The zero-order correlations between the BDI score of the helpee and the behaviors of the helper are presented in Table 4. None of the correlations for husbands or wives were significant.

Correlations between Marital Satisfaction and Support Behaviors

It is well documented that marital distress and depression covary, as do marital distress and behavior (Weiss &Heyman, 1990). In this sample, BDI and LW have a correlation of -.34 for husbands and -.40 for wives. Thus, it is possible that the association between depression and behavior may be due to the influence of marital distress on both variables.

Table 3 shows the zero-order correlations between LW and support behaviors. For husbands as helpers the LW score was positively associated with the Positive Other code and the Positive Emotional code. The LW score was negatively associated with both the Negative code and the Neutral code. For wives as helpers the LW score was positively correlated with the Positive Emotional code. No other correlations were significant. For husbands as helpees the LW score was positively correlated with the Positive code and negatively correlated with the Negative code. For wives as helpees LW score was positively correlated with the Positive code and negatively correlated with the Negative code and the Neutral code. Table 4 shows the zero-order correlations between a helpers behavior and his/her partner's marital satisfaction. Husbands behaviors as helpers were positively associated with wives LW score for the Positive Emotional code and negatively associated with the Neutral code. The wives behaviors as helpers were positively associated with husbands LW score for the Positive Other code and negatively associated with the Negative code. These results indicate that when marital satisfaction increases social support behaviors become more positive and less negative.

Correlations between BDI and Support Behaviors, Controlling for Marital Satisfaction

In order to examine whether the significant correlations found between the BDI scores and social support behaviors were retained when controlling for marital satisfaction, a series of partial correlations were analyzed. The partial correlations are shown in Table 5. For helpers, when husband's LW score was controlled, no significant correlation between BDI score and support behavior remained. In addition, when wive's LW score was controlled, no significant correlation between BDI and support behaviors remained. For helpee behavior, no

significant association between BDI score and helpee behaviors remained for husbands or wives after controlling for the LW score. The disappearance of significant associations between BDI score and support behaviors when controlling for LW score suggests that marital satisfaction may be playing a greater role in the support behaviors than depression.

Post-hoc Analyses

A series of post-hoc Hierarchical Multiple Regression analyses were performed in order to further explore the interrelations between the LW score, BDI score, and social support behaviors. By using these analyses it is possible to ascertain whether marital satisfaction plays a moderating role such that for spouses lower in marital satisfaction, depressive symptoms are associated with negative behavior. Specifically, individuals with low levels of marital satisfaction and high levels of depressive symptoms should exhibit the most negative behaviors. Using the moderation model, as outlined in Baron and Kenny (1986), an interaction variable was created from the BDI and LW scores. In the creation of this interaction term the variables were centered, whereby each score is made a deviation score with a mean of zero by subtracting the mean from each variable. The centering procedure allows for a better estimate of the interaction (Aiken & West, 1991). In the analyses BDI and LW scores were entered simultaneously, followed by the interaction variable.

A separate Hierarchical Multiple Regression was run for each of the seven significant findings from the zero-order correlations between BDI score and social support behaviors. Results are presented in Table 6. First, analysis of the Negative code for the husband as helper indicated that the interaction between LW and BDI score did not significantly add to

the explained variance (B = .11, $p < .15$). Analysis revealed that for this code LW score (B = -.21, $p < .01$) was a better predictor than BDI score (B = .14, $p < .07$). Second, analysis of the Positive Other code for the husband as helper indicated that the interaction between LW and BDI score did not significantly add to the explained variance (B = -.12, $p < .13$). Analyses of the two possible main effects revealed that neither BDI (B = -.15, $p < .06$) nor LW (B = .15, $p < .07$) was a unique significant predictor of husband as helper Positive Other behavior. However, when entered together in the initial stage of the analysis, the two variables accounted for a significant amount of variance in behavior ($R^2 = .04$, $p < .03$). Third, analysis of the Negative code for the wife as helper indicated that the interaction was not a significant predictor (B = -.05, $p < .53$). Additionally, neither the BDI (B = .10, $p < .25$) nor LW (B = -.09, $p < .26$) scores were significant predictors of the wife as helper Negative behavior. However, when entered together in the initial stage of the analysis, the two variables accounted for variance in behavior approaching significance ($R^2 = .03$, $p < .06$). Fourth, the analysis of the Positive Emotional code for the wife as helper indicated that the interaction variable did not add significantly to the explained variance (B = .02, $p < .81$). Again, neither the BDI (B = -.14, $p < .11$) nor LW (B = .10, $p < .22$) scores were significant predictors of the wife as helper Positive Emotional behavior. However, when entered together in the initial stage of the analysis, the two variables accounted for a significant amount of variance in behavior ($R^2 = .04$, $p < .04$).

The last three analyses relate to the helpee behaviors of the wives which were found to be significantly correlated with BDI scores. First, analysis of the Negative code for the wife as helpee indicated that the interaction variable did not add significantly to the explained

variance (B = .09, p < .28). Neither the BDI (B = .17, p < .06) nor LW (B = -.13, p < .11) scores were significant predictors of the wife as helpee Negative behavior. However, when entered together in the initial stage of the analysis, the two variables accounted for a significant amount of variance in behavior (R^2 = .05, p < .02). Second, analysis of the Neutral code for the wife as helpee indicated that the interaction variable did not add significantly to the explained variance (B = .011, p < .87). Neither the BDI (B = .14, p < .11) nor LW (B = -.14, p < .09) scores were significant predictors of the wife as helpee Neutral behavior. However, when entered together in the initial stage of the analysis, the two variables accounted for a significant amount of variance in behavior (R^2 = .05, p < .01). Lastly, analyses of the Positive code for the wife as helpee indicated that the interaction variable did not add significantly to the explained variance (B = -.02, p < .81). Neither the BDI (B = -.14, p < .11) nor LW (B = .13, p < .12) scores were significant predictors of the wife as helpee Positive behavior. However, when entered together in the initial stage of the analysis, the two variables accounted for a significant amount of variance in behavior (R^2 = .05, p < .02). In sum, these results indicate that in all cases, except the husband as helper for the Negative code, neither the BDI nor LW scores provide significant unique information when the correlate is controlled. This occurs even though both correlate with social support behaviors when entered alone. Yet, the results also reveal that in no case can the LW score be seen as moderating the association between BDI score and social support behaviors.

Discussion

The present study tested the hypothesis that depressive symptomatology is associated with the social support behaviors of husbands and wives. Zero-order correlations between

depression and support behaviors supported the hypothesis. However, further examination of the role of marital satisfaction in this association suggested that depression and marital satisfaction together account for significant variance, but neither variable alone is a significant correlate.

Examination of the first hypothesis, that helpers provide decreased positive and increased negative support as depressive symptoms increase, revealed that for husbands and wives, some positive and negative behaviors were associated with level of depressive symptoms. The second hypothesis suggested that partners requesting aid would do so in a less positive and more negative manner as depressive symptomatology increased. Results indicated that wive's positive and negative behaviors were associated with depressive symptomatology. Husbands behaviors were not significantly correlated with depressive symptomatology when asking for aid. For helpees, only wive's requests for aid indicated a lack of social skill. Overall, these results are consistent with Lewinsohn's theory of social skills deficit (1974) in depressed persons. Although the social support behaviors assessed in the present study do not correspond exactly with the five social skills mentioned by Lewinsohn, the results suggest that helpers were less socially skilled as their depression score increased. The results of the first two hypotheses are also consistent with Coyne's (1976a) Interpersonal Theory of Depression, which predicts that depressed persons behave more negatively, or aversively.

The significant associations between depressive symptomatology and support behaviors were not retained when the effects of marital satisfaction were controlled. Controlling for marital satisfaction reduced the association between depression and support behaviors because

marital satisfaction was moderately and consistently correlated with support behaviors for husbands and wives. These findings are consistent with those of Schmaling and Jacobson (1990) who reported that marital distress accounts for behavioral differences found in depressed versus nondepressed couples.

Analysis of the third hypothesis, that a helper's behavior would become more negative as the depressive symptomatology of the partner increased, indicated that there was no significant association between a helpee's depression score and the helper's responses. However, a helpee's *marital satisfaction* was significantly associated with the helper's positive, negative, and neutral responses. These findings offer further support for the view that marital satisfaction is strongly associated with spousal support behaviors (Gotlib & Beach, 1995).

Based on the previous findings, it was thought that depressive symptoms and marital satisfaction might have a more complex relationship rather than a simple direct association. To further explore the association between marital satisfaction and support behaviors, post-hoc analyses were conducted to test the idea that marital satisfaction moderates the association between depressive symptoms and support behaviors. Analyses indicated that marital satisfaction did not function as a moderator. Yet, the analysis did shed light on the association between these two variables and behavior. Specifically, both variables together accounted for variance in behavior. However, neither variable alone accounted for significant variance. This suggests that both depressive symptomatology and marital satisfaction play a role in the resulting behavior. If marital discord truly accounted for all of the differences in spouses behavior, as suggested by Schmaling and Jacobson (1990), then we should have seen better predictive value when marital satisfaction was correlated with

behaviors, even after controlling for the influence of the depression score. Clearly, the marital discord literature must take into account the effects of depressive symptomatology and social support on marital satisfaction.

It is noteworthy that some aspects of behavior were not associated with depressive symptomatology, even at the zero-order level. Specifically, a helper's behavior was not significantly correlated with his/her partner's depressive symptomatology. This is inconsistent with Coyne's theory (1976a) which predicts that partners react more negatively to a depressed person over time. Perhaps it is too early to see the negative spiral hypothesized by Coyne due to our sample of newlyweds and the low base rate of the depressive symptomatology. Overall, the findings are also confirmatory of Patterson's Coercion Theory (Patterson & Reid, 1970), that depressed persons behave aversively, in that helpees were found to be more negative as depression increased. The coercion theory also hypothesizes that depressive behavior is functional in reducing the aversive behavior of others. Yet, there is no indication that helpers withdrew demands in response to increased depressive symptomatology of the helpee.

It is well-documented that marital satisfaction is associated with social support behaviors (Gotlib & Beach, 1995). This is highlighted in the description of the marital relationship as the most common source of salient social support (Beach, Martin, Blum, & Roman, 1993). Yet, findings in this study suggest that marital satisfaction alone is not a significant predictor of behavior. However, the combined effects of depressive symptomatology and marital satisfaction are significant predictors. In order to clarify how marital satisfaction affects spousal support behavior, future research should have couples

engage in a social support task. A longitudinal design using dichotomous groups of depressed-maritally distressed, depressed-nondistressed, nondepressed-distressed, and nondepressed-nondistressed couples, as in Schmaling and Jacobson (1990), could be used. By using dichotomous groups and a social support task, future research may help discriminate how social support behaviors vary as a function of marital satisfaction as well as depression.

Results of the present study suggest that depressive symptoms have a small effect on social support behaviors when the role of marital satisfaction is considered. In addition, other non-significant zero-order correlations suggest that some forms of support behaviors are not associated with depressive symptoms. For example, husband's helpee behaviors did not become more negative with an increase in depressive symptomatology. Yet, evidence for the theory of social skill deficits in individuals with depressive symptomatology is well-documented (Lewinsohn, 1974; Coyne, 1976a). Therefore, it is questionable why husbands might not exhibit a decrease in ability to ask for aid as depressive symptomatology increases. These findings has implications for the Stress-Buffering Hypothesis, which theorizes that social support acts as a buffer against depression, altering the perceptions of stress and ameliorating the depressive effects of life strain (Jackson, 1992). The Stress-Buffering Hypothesis rests on research employing perceived support as a measure of social support. Perhaps perceived support has more of an effect on depressive symptomatology than actual support behaviors. This analysis is consistent with one of the hypotheses within the Marital/Family Discord Model of depression (Gotlib & Beach, 1995). It states that "the most important aspect of social support may not be supportive behavior that actually occurs, but rather, the perception that supportive others would be available if they were needed (Gotlib &

Beach, p.423)." Evidence for this view is presented in Lieberman (1982), who found that participants were less likely to be adversely affected by stress if they believed they had significant others (especially spouses) to count on. Most studies examining the behaviors of couples has employed conflict discussions. When this is done, results indicate a significant association between level of marital satisfaction and spousal behavior (Biglan et al., 1985; Schmaling & Jacobson, 1990). Future research should employ a social support task in order to further examine the association between social support behaviors and depressive symptomatology. This analysis raises issues that must be addressed if the relationship between social support and depression is to be understood.

Results of this study suggest that there is high shared variance between depression and marital satisfaction. This is consistent with Weiss and Heyman's (1990) conclusion that there is a well-documented link between marital distress and depression. Several studies have examined how marital distress affects depression (Beach & Arias & O'Leary, 1988, Monroe, Bromet, Cornell, & Steiner, 1986). Further, Beach and Nelson (1989) hypothesize that the effects of marital distress on depression are influenced by intermediate factors, such as social support. Due to the use of correlations in this study, it is not possible to make conclusions concerning the direction of effect that one variable may have on the other. Yet, moderate correlations between the two variables and the lack of significant associations between either of the variables and support behaviors suggest that the relationship between the variables may be complex. Weiss and Heyman (1990) suggest that the discovery of interactive patterns predictive of future depression and distress are necessary. This study has identified support behaviors which are significantly associated with depressive symptomatology and marital

satisfaction together. A better understanding of the complex relationship between depression and marital distress is necessary if marital research seeks to create effective models of treatment for depression.

An ideal study to be accomplished in the future might include the four dichotomous groups used in Schmaling and Jacobson (1990) consisting of depressed-maritally distressed, depressed-nondistressed, nondepressed-distressed, and nondepressed-nondistressed couples. This method would allow the unique effects of marital satisfaction and depression to be identified and studied. Within the study, both perceived support and actual social support can be measured in order to determine which is more predictive of future levels of depression or marital satisfaction. It is possible that one measure may be more important in the development of depression than marital satisfaction and vice versa. Questions such as these could be answered with this procedure. Further, a longitudinal design by which two samples of level of depressive symptomatology, level of marital satisfaction, and social support behaviors are measured over a year's time will allow a cause and effect relationship to be studied. Within the analysis it might be informative to graph the support interactions based on microanalytic data in a sequential analysis in order to search for interactive patterns. One might find different patterns based on different groups or different subgroups. Research has suggested that a subgroup of depressed individuals may enter a marriage with a depressed mood, while another subgroup displays depression in response to marital distress (Gotlib & Beach, 1995). The patterns for each of the four groups can be compared over time to see how interactive patterns change both within and between the four different groups. Based on this analysis, it may be possible to identify interactive patterns predictive of future

depression or marital satisfaction. By use of this proposed procedure, many of the questions generated in this study may be answered.

A limitation of this study is a low base rate of depressive symptomatology. The mean BDI scores were only 3.94 (Range = 0 to 21) for husbands and 4.41(Range = 0 to 19) for wives. A population with more severe depressive symptomatology might be more appropriate in judging some of the theories which deal with clinical populations. It is possible that the associations between the variables examined would be stronger with a more depressed population. In light of this, the results of this study can be seen as conservative, with the associations as underestimations. Due to the low base rate of depression, the range of marital satisfaction and depression scores was restricted. With a larger range in scores stronger associations may be found between marital satisfaction scores, depression scores, and social support behaviors. Again, this could explain why some associations were non-significant and allows the results to be considered conservative.

Another possible limitation is the procedure used to measure social support. Each individual was asked to come up with a topic concerning something that he/she would like to improve about him or herself. This procedure may suggest a future goal, rather than a daily stress. The true nature of support may be missed due to the artificiality of asking for aid with an issue that is not immediately distressing. For instance, many couples reported initially having trouble coming up with a task, although all did. It is possible that the discussion and support given concerning hassles which take place on a daily basis may be the true measure of both actual and perceived support. It might be beneficial to use an alternate system of coding, wherein the couple is telephoned at random points in time and asked about their

current stressors and how the partner has responded. Some examples of questions might include; did you turn to your spouse for support today? did he/she respond in a way that was helpful? what did your spouse say or do? how do you feel about the quality of the support given? and do you feel that you will benefit from turning to your spouse in the future? This procedure might be a more environmentally valid way to measure social support, yet it cannot account for the bias of the responder. In fact, with this procedure all information concerning behavior would be filtered through the perceptions of the responder. If perceived support is truly the most important aspect of social support this may not be considered a problem. Future research into that question can help judge the appropriateness of the use of this proposed alternate method. Additionally, an in vivo sampling procedure can be considered, wherein a recording of the couples' interactions are taken at random times by a pre-set recording device in the home. This could provide a more generalizable and valid measure of social support, yet may be difficult to manage based on a lack of resources. While it may be best to measure responses to daily issues of life, rather than 'topics of change', the content of the videotaped interactions themselves suggest that the couples chose topics that could be considered daily stressors. Thus, while alternative methods of data collection should be considered, the method used in the present study can be seen as measuring the support given to a spouse concerning the partner's stated daily stressor.

In conclusion, the current study expanded previous marital research by measuring behaviors in newlywed dyads engaged in a social support task. Results indicate that depression and marital distress together play a role in the variation of social support behaviors. Future research is necessary in order to identify the precise relationship between

marital distress, depression, and social support. Only then will the interpersonal theories of depression be complete.

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Table 1

Interrater Reliability for Social Support Coding

	Average % Agreement
Helper	.69
Helpee	.77

		Average Correlation Coefficients			
Helper	PI	.75	Helpee	PS	.79
	PE	.80		NT	.74
	PO	.86		NG	.75
	All Positive	.86		OT	.73
	NG	.80			
	NT	.81			
	OT	.78			

Note. N = 172. PO = Positive Other, PI = Positive Instrumental, PE = Positive Emotional, NG = Negative, NT = Neutral, OT = Off Task, PS = Positive.

Table 2

Means and Standard Deviations for BDI and LW, Proportions of Social Support Codes

	Husbands		Wives	
Variable	M	S D	M	SD
BDI	3.94	3.95	4.41	4.11
LW	126.22	17.56	130.04	16.24
Helper				
PO	.47	.19	.49	.19
PI	.06	.07	.08	.09
PE	.06	.10	.07	.09
NG	.07	.13	.07	.14
NT	.28	.15	.24	.14
OT	.06	.10	.07	.13
Helpee				
PS	.67	.22	.64	.22
NG	.04	.10	.07	.13
NT	.23	.16	.24	.13
OT	.07	.13	.05	.10

Note. N = 172. PO = Positive Other, PI = Positive Instrumental, PE = Positive Emotional, NG = Negative, NT = Neutral, OT = Off Task, PS = Positive.

Table 3

Zero Order Correlations between BDI, LW, and Social Support Behaviors for Husbands and Wives

	Husbands		Wives	
SS Behaviors	BDI	LW	BDI	LW
Helper				
PO	-.16*	.16*	-.01	.09
PI	-.07	.13	-.05	.01
PE	-.02	.21**	-.17*	.15*
NG	.18*	-.23**	.15*	-.14
NT	.08	-.18*	-.03	-.01
OT	.03	-.04	.05	-.08
Helpee				
PS	-.04	.18*	-.18*	.17*
NG	.14	-.33***	.18*	-.17*
NT	-.02	-.06	.19*	-.19*
OT	.00	.00	-.07	.07

Note. N = 172. * p , .05. **p < .01. ***p < .001. PO = Positive Other, PI = Positive Instrumental, PE = Positive Emotional, NG = Negative, NT = Neutral, OT = Off Task, PS = Positive.

Table 4

Zero Order Correlations between Helpee BDI Score and Helper Behavior for Husbands and Wives

Wives		Husbands	Husbands		Wives
SS Behaviors	BDI	LW	SS Behaviors	BDI	LW
PO	.00	.17*	PO	-.02	.12
PI	-.11	.04	PI	-.04	.10
PE	.05	-.02	PE	-.08	.21**
NG	.07	-.29**	NG	.03	-.12
NT	-.03	.03	NT	.12	-.27**
OT	-.01	-.00	OT	-.07	.05

Note. N = 172. * p , .05. **p < .01. ***p < .001. PO = Positive Other, PI = Positive Instrumental, PE = Positive Emotional, NG = Negative, NT = Neutral, OT = Off Task, PS = Positive.

Table 5

Partial Correlations between BDI and Social Support Behaviors, Controlling for LW

	Husbands	Wives
SS Behaviors	BDI	BDI
Helper		
PO	-.11	.02
PI	-.02	-.05
PE	.04	-.12
NG	.11	.11
NT	.02	-.04
OT	.02	.02
Helpee		
PS	.01	-.12
NG	.03	.12
NT	-.05	.12
OT	.00	-.04

Note. N = 172. * p , .05. **p < .01. ***p < .001, PO = Positive Other, PI = Positive Instrumental, PE = Positive Emotional, NG = Negative, NT = Neutral, OT = Off Task, PS = Positive.

Table 6.

Results of Post-hoc Multiple Regressions (MR) with BDI and LW Entered Simultaneously, Followed by the Interaction Variable, for the Seven Support Behaviors Significant at the Zero-Order Level.

Step Number/Variable Name	Beta	p value	R^2	R^2 Change
MR Analysis of Husband as "Helper", NG code				
1. BDI	.12	.07		
LW	-.19	.02**		
BDI + LW		.01**	.07	
2. BDI X LW	.11	.15	.08	.01
BDI	.14	.07		
LW	-.21	.01**		
MR Analysis of Husband as "Helper", PO code				
1. BDI	-.12	.12		
LW	.12	.13		
BDI + LW		.03*	.04	
2. BDI X LW	-.12	.13	.05	.01
BDI	-.15	.07		
LW	.15	.07		
MR Analysis of Wife as "Helper", NG code				
1. BDI	.12			
LW	-.09			

Step Number/Variable Name	Beta	p value	R^2	R^2 Change
BDI + LW		.06	.03	
2. BDI X LW	-.05	.53	.04	.01
BDI	.10	.25		
LW	-.09	.26		
MR Analysis of Wife as "Helper", PE code				
1. BDI	-.13	.14		
LW	.10	.23		
BDI + LW		.04*	.04	
2. BDI X LW	-.02	.81	.04	.000
BDI	-.14	.11		
LW	.10	.22		
MR Analysis of Wife as "Helpee", NG code				
1. BDI	.13	.10		
LW	-.12	.13		
BDI + LW		.02*	.05	
2. BDI X LW	.09	.28	.05	.001
BDI	.17	.06		
LW	-.13	.11		

Step Number/Variable Name	Beta	p value	R^2	R^2 Change
MR Analysis of Wife as "Helpee", NT code				
1. BDI	.13	.10		
LW	-.14	.09		
BDI + LW		.01**	.05	
2. BDI X LW	.01	.87	.05	.000
BDI	.14	.11		
LW	-.14	.09		
MR Analysis of Wife as "Helpee", PS code				
1. BDI	-.13	.10		
LW	.12	.12		
BDI + LW		.02*	.05	
2. BDI X LW	-.02	.81	.05	.000
BDI	-.14	.11		
LW	.13	.12		

Note. N = 172, * p , .05. **p < .01. ***p < .001. BDI = Beck Depression Inventory, LW = Locke-Wallace, PO = Positive Other, PI = Positive Instrumental, PE = Positive Emotional, NG = Negative, NT = Neutral, OT = Off Task, PS = Positive.

Appendix

Social Support Interaction Coding System (Abridged)

This coding system, designed by Bradbury and Pasch (1992), is designed to assess the behaviors that couples display when one spouse is asked to discuss a personal difficulty that they would like to resolve or some personal characteristic that he/she would like to change while the other spouse is allowed to contribute in whatever way he/she wants.

Helper

Positive Other (PO)

1. Offers a specific, clear analysis of problem. More than simple description, not advice.
2. Summarize in a helpful way what has been said.
3. Assists spouse in defining problem.
4. Asks general questions that reveal willingness to help and interest.
5. Helps spouse reframe problem in a useful way.

Positive Instrumental (PI)

1. Suggests a specific plan of action.
2. Gently suggests a new way of handling the problem.
3. Emphasizes need for a specific plan, or demonstrates willingness to prepare one with helpee.
4. Offers to assist in some specific way.
5. Offers constructive feedback.

Positive Emotional (PE)

1. Helps spouse to express or clarify feelings about problem.

2. Tries to bolster spouse's self-esteem.

3. Reassures or consoles spouse.

4. Conveys understanding of spouse's concerns and difficulties, acknowledges appropriateness of helpee's feelings.

5. Provides genuine, appropriate encouragement.

Negative (NG)

1. Criticizes spouse, spouse's approach to problem, or spouse's behavior.

2. Blaming, accusing, criticizing spouse.

3. Uses sarcasm, humiliation.

4. Asks an insulting, inappropriate, or pointed question with negative tone.

5. Gives useless advice.

Helpee

Positive (PS)

1. Offers a specific, clear analysis of problem. More than simple description.

2. Responds to helper's question with thoughtful response, showing that he/she is using spouse as an aid.

3. Recognizing how good things will be when problem is resolved; using this recognition as motivation or to emphasize value of relationship.

4. States needs in clear, useful way.

5. Expresses feelings (even negative ones), especially in response to partner's inquiry.

Negative (NG)

1. Expects spouse to take charge of problem.

2. Rejects help.

3. Needless repetition of problem and all the possible solutions.

4. Pleads with partner to help.

5. Denies problem, denies responsibility for the problem.

Codes that are the same for Helper and Helpee

Neutral (NT)

1. Descriptive information about problem. This should be distinguished from helpful analyses of the problem.

2. Also use NT for on-task speech that is difficult to understand or too brief to be coded as positive or negative.

Off-Task (OT)

1. Spouse talks about matters not relevant to the problem under discussion.

2. Spouse continues to talk about irrelevant material, regardless of who originally took the discussion off-task.