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# Visibility and responsiveness: Their influences on the impact of social support

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Visibility and responsiveness:
Their influences on the impact of social support


by


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**ABSTRACT**

This study examined the influences of support visibility, perceived responsiveness, and adult attachment dimensions on the effects of social support. These influences were assessed for support's impact on depressive symptoms, self-esteem, relationship satisfaction, perceived mattering, intimacy, and progress towards stressor resolution. A total of 99 couples recruited from the ISU Psychology Research Pool participated. Multilevel regression results failed to replicate key support visibility findings. Attachment avoidance was negatively associated with perceived responsiveness for men and with perceived support receipt for both genders. Practical support was associated with stressor resolution for men only. For men only, support receipt (but not partner provision) was associated with decreased depressive symptoms and increased self-esteem. Additional results regarding daily fluctuations in depression are also presented.

# INTRODUCTION

Social support is a key part of romantic relationships. Partners are frequently the most important providers of social support (Ptacek, Pierce, Dodge, & Ptacek, 1997; Beach, Martin, Blum, & Roman, 1993), and support from other sources does not make up for poor support provision by romantic partners (Coyne & Anderson, 1999; Coyne & Delongis, 1986). Social support plays an important role in maintaining relationships, providing daily behavioral confirmation of positive partner motives and intentions (Snyder, 1984; Fincham, 2001). In times of stress, there is an expectation that relationship partners can be trusted to offer comfort and solace. In fact, partners view social support receipt as a relationship "rule" (Cutrona, 1996) with serious repercussions if support fails to materialize (Gleason, Iida, Bolger, & Shrout, 2003). Despite the importance of feeling supported, research regarding the actual effects of receiving support is mixed. While some studies report that social support is beneficial (e.g., Bell, LeRoy, & Stephenson, 1982), others have suggested support can negatively impact well-being (e.g., Shrout, Herman, & Bolger, 2006). This review analyzes recent developments in the study of support visibility, perceived responsiveness, and attachment in an attempt to develop a more comprehensive understanding of how these factors may influence the effects of social support.

**LITERATURE REVIEW**

*Social Support Terminology*

As in many areas of research, the field of social support has evolved its own unique

terminology.  For example, researchers use specific terms to differentiate between the ways in

which they measure support. While some research focuses on observed support behaviors, other

studies focus on self-reports of either *received* or *perceived* support. Researchers conducting

observational studies typically use trained raters who observe support interactions between

friends, family, romantic partners, or other dyads. Studies of self-reported received support focus

on the specific behaviors which support recipients believe they have been provided within a

support transaction. In both observational and self-reported received support studies, researchers

typically measure the frequency with which specific support behaviors are received, and attempt

to link this frequency to outcomes of interest.

Another approach to assessing social support taps people's subjective assessments of the

availability or quality of support available in times of need. Termed "perceived support," the

emphasis of this approach is on people's perceptions of the functions served by support

providers. Cobb (1976), for example, differentiated between support behaviors that were

intended to care for others, impact the providers' esteem, and foster involvement. Weiss (1974)

identified six types of relational support provision, including attachment, social integration,

reassurance of worth, guidance, and nurturance. Other researchers (i.e., Gottlieb, 1978; Mitchell

& Trickett, 1980; Barrera & Ainlay, 1983) have attempted to categorize support behaviors into

various classes.

While researchers have often disagreed on the precise number and makeup of these

classes, Vaux (1988) reports that they can generally be broken into the areas of instrumental and

affective support based on their functions. Instrumental functions are served through such behaviors as providing advice or tangible assistance. Behaviors which provide advice, suggestions, or opinions have become known as *informational support*, while those that involve tangible assistance (such as loans or assistance with tasks) have become known as *tangible aid* or *practical support*. Collectively, these behaviors have been termed *instrumental support*. Affective functions are served by meeting needs for love, esteem, and belonging. Behaviors meeting needs for love, affection, and understanding have been termed *emotional support*, while those meeting needs for affiliation and being valued have been termed *esteem support*. Collectively, these behaviors have been termed *nurturant support*.

In addition to assessing levels of received or perceived support, some studies of self-reported support focus on social integration or social networks (sometimes termed "structural support"). Studies examining social integration typically focus on whether subjects have developed ties to society, such as marriage, contact with relatives, or membership in associations, religious organizations, or clubs (Vaux, 1988). While these studies measure the effect of social involvement, one drawback is that they generally do not focus on the relative contributions or importance of specific types of social involvement. Studies of social networks, on the other hand, attempt to analyze the size, structure (i.e., the level of interconnectedness among individuals in one's network) or composition (i.e., average SES of members, duration of relationships, or geographic proximity) of various types of social relationships (Vaux), and determine how these factors relate to outcomes such as mental or physical health.

Regardless of the methods employed, studies of social support typically examine the association of social support with outcome measures of individual well-being (e.g., emotional or physical health) or relationship quality (e.g., satisfaction or intimacy). Interestingly, studies

which actually examine the effectiveness of social support for solving the problems that led to a need for social support (such as obtaining a desired promotion or passing an exam) are quite rare.

*Effects of Social Support*

There is substantial evidence showing that partners are right to consider support important. Researchers have linked social support (measured variously) to quicker recovery from illness (Manne & Zautra, 1989; Nelles, McCaffrey, Blanchard, & Ruckdeschel, 1991), lower rates of reactive depression (Brown, Bhrolchain & Harris, 1975), lower role strain (Kessler & Essex, 1982), and effective coping with psychological distress (Cohen & Wills, 1985; Thoits, 1982; Adams, King, & King, 1996). Although social support is clearly important, researchers have historically disagreed as to how it operates. Two major schools of thought have emerged; one focusing on ways in which social support has a main effect on adjustment, and another focusing on ways in which social support acts as a buffer, primarily aiding people in coping with negative life events and other stressors.

The main-effects approach views support from others as providing benefits to well-being, regardless of stress levels (Frydman, 1981). In reviewing the social support literature, Cohen and Wills (1985) found that studies examining social integration were consistent with this view. Social support in the form of social integration has been linked to such positive outcomes as lower levels of depression (Bell, LeRoy, & Stephenson, 1982), lower levels of anxiety (Williams, Ware, & Donald, 1981), and fewer pregnancy complications (Norbeck & Tilden, 1983). Cohen and Wills note that this sense of social integration provides an ongoing boost to well-being, whether or not an individual experiences stressful events. Support from a stable network provides a sense of belonging and consistency, (Cobb, 1976; Weiss, 1974) and may help people avoid experiencing aversive experiences such as loneliness (Cohen & Wills). Proponents

of the main-effect approach to social support claim that receiving social support is associated with well-being, regardless of the presence or absence of stressors.

Research suggests that the beneficial main (or direct) effects of support are not always seen over the short term. The Relationship Enhancement Model (Cutrona, Russell, & Gardner, 2005) suggests that one of social support's most important contributions to well-being may stem from its gradual and cumulative effects on close relationships. The Relationship Enhancement Model proposes that, to the degree that partners consistently provide social support to each other, they foster feelings of trust and commitment in their partners. This in turn has been shown to improve relationship quality (Kurdek, 2002; Quinn & Odell, 1998), which promotes and maintains mental and physical health (Cutrona et al., 2005) by preventing the dissolution of the relationship and fulfilling needs for connection and security (Holmes, 2002).

The stress-buffering model of social support contends that the main function of social support is to assist people in coping with stressful situations (Cassell, 1976; Cobb, 1976). In these situations, support allows them to cope with and recover from challenges that could otherwise prove devastating. Proponents of the buffering approach contend that social support should have no bearing on adjustment in the absence of stressful events. In support of the buffering hypothesis, social support has been shown to protect against post-partum adjustment difficulties (Cutrona & Troutman 1986), reduce the rate of progression in breast cancer (Spiegel, 1992), and prevent the development of clinical depression during times of stress (Brown & Harris, 1978). In reviewing the available social support literature, Cohen and Wills (1985) note that the buffering hypothesis receives the most support in situations where researchers measure perceived availability of support that confers acceptance, understanding, and assistance in reacting to stressful events.

A small literature also exists regarding the effects of social support on problem-solving. Lindner, Sarason, and Sarason (1986) found that those who reported having low levels of social support performed better on a problem solving task when given experimenter-provided social support, and similar results were found by Sarason and Sarason (1986) when participants were asked to solve anagram puzzles. However, support for this result is mixed, as other researchers have failed to find an effect for experimenter-provided social support on anagram performance (Jemelka & Downs, 1991; Tanaka, Koji, & Matsuzaki, 1990). Studies failing to find an effect of social support provided only nurturant support, while those that did find an effect provided instrumental support. Haven (1994) claimed that this might explain the difference in findings. She argued that participants were in need of instrumental support, and that experimenter-provided nurturant support was unhelpful because it did not address their needs. To test this, Haven conducted an experiment in which participants were exposed to a list of word pairs which they were later asked to recall. Half of the participants completed a trial run of the task and were given positive feedback regarding their performance, bolstering their self-esteem and reducing their need for nurturant support. The remaining participants received advice on how to approach the task, reducing their need for instrumental support. Participants receiving the self-esteem intervention benefited from instrumental support, but not nurturant support. Participants receiving the instrumental intervention benefited from nurturant support, but not instrumental support. Thus, while social support appears to promote effective problem-solving, this is only the case when the support matches the needs of the recipient.

*Perceived Support*

Regardless of whether one adopts a main-effects or buffering effect perspective, studies of perceived support typically show the strongest associations with positive outcome variables.

The belief that social support is available if one needs it predicts better job satisfaction (Dignan, Barrera, & West, 1986), lower rates of depression among older adults (Russell & Cutrona, 1991), and more favorable outcomes following stressful events (Cohen & Wills, 1985). Perceived social support has also been associated with better general health and adjustment across a number of dimensions (Stroebe & Stroebe, 1996). Individuals who perceive their partners as likely sources of support are more effective at solving social problems (Lindner, Sarason, & Sarason, 1986) and report higher levels of intimacy (Reis, 1990; Reis, Clark, & Holmes, 2004) with their romantic partners. They are also more satisfied with their relationships (Monroe, 1983) and feel closer to their partners (Shrout, Herman, & Bolger, 2006). These feelings and perceptions foster positive attributions in support receivers regarding their partners' behavioral motives, enhancing trust within the relationship. This, in turn, enhances the effects of future support behaviors by ensuring that recipients view support providers' assistance as sincere and heartfelt (Collins & Feeny, 2000).

*Observed Support: An Unexpected Twist*

The debate between proponents of the direct-effects and buffering models of social support is long-standing. With structural measures of social support (i.e., social network characteristics) tending to support the direct-effect model and perceived support studies tending to support a buffering approach, Barrera (1986) suggested that researchers abandon attempts to study social support in a global sense. Instead, he suggested we more closely study specific support components and support transactions. A number of researchers responded by examining self-reported receipt of support, expecting to identify specific behaviors and patterns of interaction that could predict its positive effects (Shrout, Herman, & Bolger, 2006). Unfortunately, their findings painted a confusing picture. Providers and recipients frequently

struggle to agree which specific types of support have been provided (Sarason, Sarason, & Pierce, 1990) or even whether support has been provided at all (Bolger, Zuckerman, & Kessler, 2000).

Furthermore, although some researchers have found relations between self-reported received social support and later positive outcomes (Collins, Dunel-Schetter, Lobel, & Scrimshaw, 1993; Feldman, Downey, & Schaffer-Neitz, 1999), others have found that received support is positively associated with later negative outcomes or not correlated at all with later outcomes (Barrera, 1986; Nadler, 1987; Shrout, Herman, & Bolger, 2006). If perceived partner supportiveness and objectively observed support correlate positively with adjustment, why is the self-reported receipt of support so problematic? Baron and Kenny (1986) have suggested that when the only commonality in research findings is that they disagree, researchers are likely overlooking a factor that moderates the effects of the studied variables. Perhaps self-reports of received social support provide conflicting results because the awareness of having received social support often carries negative consequences. From this perspective, observationally measured social support might be associated with positive outcomes, while self-reports of received support would be associated with negative outcomes. Support visibility (whether or not the support recipient is aware of receiving the support) might be one moderator which explains the inconsistency in the research literature.

*Effects of Support Visibility*

Why would awareness of having received support be associated with negative outcomes? Theorists have begun to examine the meaning individuals derive from their partners' behavior (Fincham, Stanley, & Beach, 2007; Stanley, 2007). Adopting this perspective, researchers have suggested that the experience of receiving support can carry negative connotations for the

support recipient (Shrout, Herman, & Bolger, 2006). Amarel (2001) reviewed a number of ways in which this could occur. First, recipients may feel the support implies that they are not competent or capable of handling their life stressors, which lowers self-esteem. Second, social support may lead recipients to ruminate about their problems by focusing attention on them. Third, in drawing their attention to the problem, it may increase recipients' performance anxiety in situations that involve a potential for failure or evaluation by others. Fourth, by taking an active role in solving the problem, support providers might undermine the autonomy of recipients (e.g., by providing tangible assistance in changing the oil in the recipient's car, a support provider might reduce the chances that the support recipient will learn how to change a car's oil) . Finally, receiving support from another could disrupt the equity of the relationship, leading the recipient to feel indebted to the provider.

Clearly, there is a chance that when support recipients notice that they have received support, they may interpret it negatively. Fortunately, if individuals are unaware they have received support, they cannot interpret it negatively. Thus, if supporters are able to provide assistance "invisibly," without recipients realizing they are being assisted, then the positive results found in observational studies and studies of perceived support should appear (Bolger, Zuckerman, & Kessler, 2000; Shrout, Herman, & Bolger, 2006). In a daily diary study conducted by Bolger et al. with couples in which one member was a law student studying for the bar exam, this did, in fact, occur. The researchers asked the law student (the support recipient) to keep track of whether he or she had received emotional support each day for the four weeks leading up to the examination. The student's partner (the support provider) was asked to keep track of whether he or she had provided emotional support each day for the same time period. Both respondents were also asked to keep track of their levels of depression each day. In order to ensure that

support behavior influenced levels of depression and anxiety rather than the other way around (e.g., supporters providing additional support to partners suffering from more depressive symptoms), reports of support behavior were used to predict changes in recipients' levels of depression and anxiety between the current and following day.

The researchers found that following days where the _recipient_ reported receiving support, he or she would experience increases in depression the next day. However, following days where the _provider_ reported providing emotional support, but the recipient did not report receiving support; he or she experienced decreased levels of depression the next day. On days where both the recipient and provider were aware of the support transaction, the positive effect of support provision was erased. Thus, the optimal combination appeared to be when the provider was able to act supportively without the recipient being aware of it. While invisible support diminished depression, it had no effect on anxiety, which suggests that invisible support may not be effective for reducing all adverse emotions.

Whereas their initial research focused on emotional support, later work by Shrout, Herman, and Bolger (2006) examined how the visibility of practical support might influence a range of emotional states (i.e., anger, fatigue, vigor, depression, and anxiety). Using the same methodology as the previous study on support visibility, the researchers asked partners to keep track of the receipt and provision of both emotional and practical support. Receipt of emotional support was associated with increased depression, anxiety, and anger, but had no effect on fatigue or vigor.  Provision of emotional support was again associated with decreased depression, but had no reliable effects on anxiety, anger, fatigue, or vigor. The researchers expected to find this same pattern following the receipt of practical support, as they believed receipt of this form of support would entail the same types of costs and benefits as the receipt of emotional support.

However, receipt of practical support was not reliably associated with changes in depression, anxiety, or anger. Provision of practical support was associated with reduced fatigue and increased vigor. Thus, the positive effects of emotional social support can be spoiled when recipients become aware they are being assisted and react with increased negative affect. The effects of practical support, at least in the context of a high-stress period, may be less influenced by support visibility.

It is important to note that visible support's effects are not completely negative. Recent research by Gleason, Iida, Shrout, and Bolger (2008) indicates that visible emotional support is associated with higher ratings of relationship intimacy. They suggest that these increases in intimacy may offset the negative effects of visible support on individual mood. In a daily diary study similar to those described above, they indeed found that individuals who responded to visible support with increased levels of relationship closeness experienced a smaller decline in their mood. The authors attribute the effects of social support on intimacy to its influence on perceived responsiveness and availability of social support, which may also moderate the impact of social support receipt.

It is interesting to note that in this approach, visible support is assumed to have occurred based solely on the recipient's report. Thus, if a provider does *not* report having given support yet a recipient reports receiving it, support is assumed to have occurred. Thus, a recipient may report visible support having occurred in situations where *no actual support was provided.* To maintain consistency, the term *visible support* will refer to any transaction in which a support recipient reports having received support. Thus, the term visible support includes both cases in which support is provided without recipient awareness and cases of "imagined support", in which the recipient believes support was provided despite no actual report of support provision

by a provider. *Invisible support* will refer to any transaction in which a support provider reports having given support, but the recipient does not report having received it.

*Effect of Perceived Responsiveness*

Research suggests that the extent to which support communicates partner responsiveness may have an important impact on the effectiveness of the interaction. Researchers have defined responsiveness as the degree to which romantic partners "attend to and react supportively to central, core defining features of the self" (Reis, Clark, & Holmes, 2004, pg. 203). When individuals interpret social support as a sign that their romantic partners understand their thoughts and feelings and are willing to act to support them, they feel more secure in their relationship. Thus, perceptions of partner responsiveness are thought to underlie feelings of intimacy, trust, and closeness in romantic dyads, which in turn benefit both members of the relationship (Cutrona et al., 2005). Perceptions of partner responsiveness are positively correlated with views of relationship importance and centrality (Reis et al., 2004). Increases in partner responsiveness are frequently used as indicators of improving relationship health, and increasing awareness of partner responsiveness is a frequent component of marital therapies such as emotionally-focused couple therapy (Johnson & Greenberg, 1995).

Partner responsiveness cannot be directly observed. Instead, it must be inferred from the behavior of others. The provision of social support is an important method by which partners express their level of care and responsiveness. Individuals hold strong expectations regarding how their partners should behave in daily supportive interactions (Clark & Mills, 1993), and adherence to or deviations from these expectations reveal information about underlying motivations and intentions regarding the relationship (Fincham, 2001). Theorists have suggested that this information allows support recipients to infer their partners' level of responsiveness

(Cutrona, 1996; Reis, Clark, & Holmes, 2004). When partners receive visible support that meets or exceeds their needs, this increases the recipients' perceptions of responsiveness. When their needs are not met, recipients view their partners as less responsive. Thus, what matters is not the supportive behavior itself, but the meaning derived by the recipient.

*Dimensions of Responsiveness*

What then determines whether a supportive behavior is viewed as responsive? Responsiveness is a multifaceted construct, and a number of aspects of supportive behavior may provide cues. Recipients attend to the degree of understanding and empathy implied by the behavior, and attempt to gauge the support provider's understanding of their underlying feelings and needs. Recipients also consider implied validation for their worldview. Finally, recipients may also attend to the implied costs of the support, or the degree to which providers must sacrifice their own goals in order to be supportive. These aspects of responsiveness will be considered in more detail below.

*Understanding.* Implicit in the definition of responsiveness is the notion that one's partner has an accurate understanding of one's feelings and needs. In fact, one of the greatest attractions in interpersonal relationships is the prospect of another person understanding and accepting one's most deeply held feelings, beliefs, and attitudes. College students rate having someone who understands them and with whom they can share thoughts and feelings as more important than having friends who make them feel special, who share their interests, or will "hang out" and attend parties with them (Reis, 1990). To the degree that support behaviors make recipients feel understood they will likely view their partners' behavior as more genuine and responsive, which may explain why perceptions of partner understanding are positively associated with relationship satisfaction (Davis & Oathout, 1987).

One way in which support providers communicate understanding is by "matching" the type of support they provide to their partners' requests. In a study of married couples, Cutrona, Shaffer, Wesner, and Gardner (2007) found that support providers were perceived as more sensitive by their partners when they provided emotional support in response to emotional disclosures than when they provided advice or assistance. By responding to the emotional content of their partners' disclosures, support providers were able to communicate that they understood their partners' needs and feelings. In cases where support providers failed to provide matching support, partners gave lower ratings of partner understanding and sensitivity, and reported feeling less satisfied with the marriage. Effective social support takes into account the specific type of support requested by the support recipient (Horowitz et al., 2001). In responding with the requested type of support, partners communicate that they have heard their partners' requests and are willing to respond to them directly.

*Validation.* Although understanding is important, it is not enough. It is also important that support recipients perceive their partners as validating their experiences and worldview. By providing validation, partners not only communicate that they are listening and understand the support recipient, but that they also value and accept the recipient's perspective (Reis & Shaver, 1988), key components of the responsiveness construct. This acceptance and valuing is central to intimacy (Lin, 1992), and underlies feelings of trust and relationship security (Reis & Shaver, 1998). Zourbanos, Theodorakis, and Hatzigeorgiadis (2006) found that validation in the form of esteem support mediated the relationship between athletic coaches' overall supportive behavior and athletes' positive self-talk. More generally, support providers who give more esteem support, a form of validation, are seen as more helpful and in touch with the recipients' needs (Carels & Baucom, 1999), and recipients who receive validation are more satisfied with their relationships

and more receptive to future supportive behaviors than those who do not feel validated (Verhofstadt, Buysse, Ickes, De Clercq, & Peene, 2005).

   *Self-sacrifice.* In every relationship, situations arise in which partner goals and needs conflict. How partners react to these situations can influence perceptions of responsiveness. When partners sacrifice their own needs to help each other, it communicates feelings of loyalty and caring (Noller, 1996). It can also show that the support provider has begun to think in terms of a couple instead of as an individual. Willing self-sacrifice has been positively associated with relationship quality in a number of studies (Stanley & Markman, 1992; Van Lange et al, 1997; Whitton, Stanley, & Markman, 2002). Support recipients who believe their partner has willingly sacrificed in order to help them are being given a powerful message of responsiveness – not only have their partners taken supportive and caring action, but they have done it at cost to themselves. It is easy to see how support which entails personal sacrifice would be viewed as more heartfelt than support which carries no cost, increasing feelings of safety and security in the relationship (Stanley, Whitton, Sadberry, Clements, & Markman, 2006).

   Researchers have recently begun to call for the inclusion of responsiveness measures in studies of how social support affects individual and relationship health (Reis, Clark, & Holmes, 2004; Gleason, Iida, Shrout, & Bolger, 2008). Since responsiveness cannot be directly observed by romantic partners, daily supportive interactions serve as one of the key ways in which it is inferred. To the degree that partner behaviors are interpreted as implying responsiveness, relationship closeness and trust will blossom. According to some relationship models (i.e., Reis et al, 2004; Cutrona, Russell, & Gardner, 2005), these enhanced relationships serve to bolster the individual morale and psychological health of both partners.

*Individual Differences in the Recognition of Social Support and Responsiveness*

There is substantial inter-individual variability in how easily people recognize they are being supported (Sarason, Sarason, & Shearin, 1986). Furthermore, some find it easy to accept their partners' support as evidence that they care, but others find it more difficult. One major factor that influences how people perceive support is adult attachment style, which provides individuals with basic "rules" of what to expect from close others during emotionally distressing times (Kobak & Sceery, 1988; Bartholomew, Cobb, & Poole, 1997). The conceptualization of adult attachment style has undergone multiple revisions (see Bartholomew & Shaver, 1998 or Fraley & Shaver, 2000, for a review). The current trend in the literature is to view attachment style as involving two relatively independent dimensions. An individual may fall anywhere along each of these two dimensions, which are described below. Although controversy still exists about their exact nature (Fraley & Shaver, 2000), the most common approach is to view them as reflecting attachment *anxiety* and attachment *avoidance* (Baldwin & Kay, 2003).

Securely attached individuals, or those with low levels of both attachment anxiety and avoidance, are hypothesized to have a history of receiving prompt and effective responses from significant others during times of distress. This, in turn, creates a general expectation that significant others can be counted on to consistently provide support, and promotes trust in relationship partners. Such individuals have been shown to develop better support networks as adults (Sarason, Sarason, & Shearin, 1986) and to report more visible support from others than non-secure individuals (Kobak & Sceery, 1988; Florian, Mikulincer, & Bucholtz, 1995). Given their generally positive history of experiences in the context of relationships, these individuals are open to receiving support and prepared to accept support providers as well-intentioned and

caring. Thus, one would expect individuals with relatively secure attachment styles to both report visible support and readily interpret that support as indicating partner responsiveness.

Individuals with higher levels of attachment avoidance or anxiety, however, are believed to have experienced less effective care-giving, resulting in a more cautious and less trusting view of the behavior of significant others. Researchers have suggested that insecure recipients are less adept at making use of support due to intimacy fears and difficulty trusting others (Coble, Gantt, & Mallinckrodt, 1996). Similarly, attachment insecurity is associated with heightened concerns about the risks, costs, and futility of seeking help from relationship partners (Wallace & Vaux, 1993). Those with high levels of attachment anxiety are hypothesized to have a history of receiving inconsistent care-giving and support from close others. As a consequence, anxiety reflects a lack of security in close relationships, characterized by worry and vigilance regarding rejection and abandonment. Even in the face of consistently effective social support, individuals with high levels of attachment anxiety retain doubts about their partners' responsiveness. Avoidance also reflects a lack of security, but is conceptualized as involving distrust of intimacy and a tendency to avoid and "block out" relationship cues. Individuals with higher levels of attachment avoidance would be less attuned to their partners' behavior, and therefore less likely to notice social support when it is provided (resulting in less frequent visible support). Thus, they would be less inclined to view their partners as responsive, regardless of the support provided.

*The Present Study*

Support visibility appears to play an important role in determining how social support influences individual and relationship outcomes. Although visible support may lead to negative individual outcomes, such as depressed mood, recognition of the support provider as responsive should create positive relationship outcomes, such as greater perceived intimacy. These two

processes need not occur simultaneously, as one may perceive visible support without viewing the provider as responsive. Similarly, it is possible that recipients might view their partners' behavior as responsive without labeling the behaviors as deliberate attempts at support provision. As noted previously, increased levels of relationship intimacy may offset or nullify the negative effects of visible support (Gleason, Iida, Shrout, & Bolger, 2008).

This study was designed to empirically test how support visibility and perceived responsiveness influence individual and dyadic adjustment. To the degree that supportive acts are visible to support recipients, they are expected to produce negative emotional outcomes for the recipient but enhanced progress towards solving stressors. However, to the degree that these supportive acts lead recipients to perceive their partners as responsive, they are expected to produce positive outcomes for the relationship itself. This study also attempted to replicate the finding that visible support would be less associated with increased depressed mood when provided in the context of a highly supportive relationship.

As noted above, people differ in the extent to which they notice or encode supportive behaviors. Those with a secure attachment style are more likely to recognize support whereas those with an avoidant attachment style are less likely to recognize support. Similarly, those with a secure attachment style are more likely to interpret behavior as indicating responsiveness whereas those with an anxious attachment style are less likely to interpret behavior as indicating responsiveness. This study examined how individual differences in attachment avoidance and attachment anxiety influence (1) the likelihood of support recipients reporting visible support has occurred and (2) the likelihood of recipients interpreting that support as implying partner responsiveness. Most studies of social support have examined emotional well-being or relationship quality as the outcomes of social support transactions. As a further innovation, this

study also examined the effects of support visibility and perceived responsiveness on the

problem-related outcomes of the support (i.e., whether it increases the likelihood of the support

recipient resolving the presenting stressor).

*Conceptual Model*
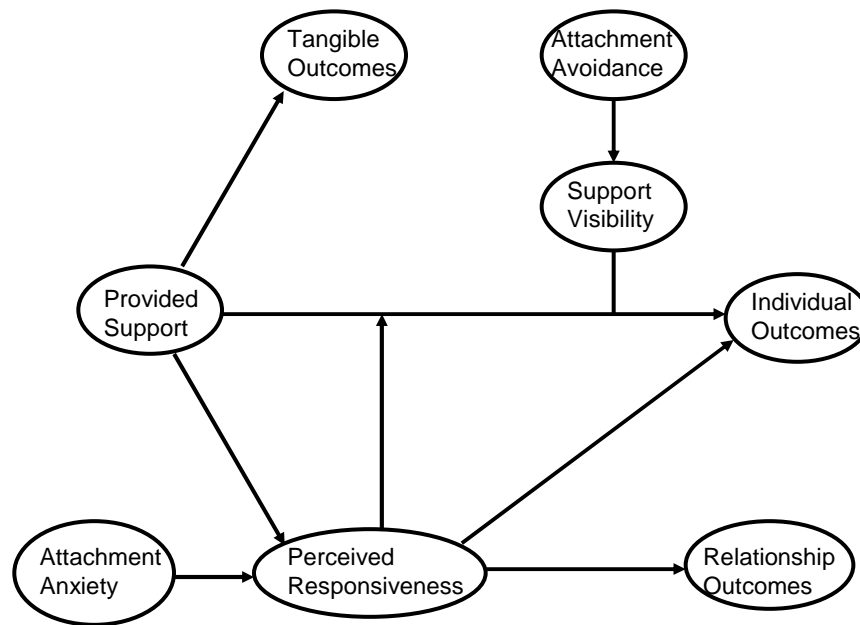


This study tested the three primary paths of the conceptual model seen above as well as

replicating Gleason, Iida, Shrout, and Bolger's (2008) finding that relationship characteristics

may mitigate the negative impact of received support upon depressive symptoms. First, the paths

from provided support to tangible outcomes, individual outcomes, and relationship outcomes,

taking into account attachment style, support visibility, and perceived partner responsiveness

were examined. Second, the moderating effects of relationship constructs upon how social

support influences depressive symptoms were explored. Tangible outcomes refer to progress

towards resolution of a specific stressor, while individual outcomes include changes in

depressive symptoms and self-esteem. Relationship outcomes include changes in relationship

satisfaction, perceived intimacy, and perceived mattering.  Relationship constructs include

relationship satisfaction, perceived intimacy, perceived mattering, and perceived responsiveness.

The specific hypotheses underlying this model will now be discussed in more depth.

*Specific Predictions*

1. Visible support was expected to correlate with lower self-esteem and more depressive

   symptoms the next day for the recipient. Invisible support was expected to correlate with

   higher levels of self-esteem and fewer depressive symptoms for the recipient.

2. *Higher levels of attachment avoidance were hypothesized to correlate with a lower rate of*

   visible support.

3. Perceived responsiveness was hypothesized to partially *mediate* the link between daily

   reported social support provision and daily reported intimacy, relationship satisfaction,

   and perceived mattering. Higher levels of perceived responsiveness were expected to

   correlate with higher levels of intimacy, relationship satisfaction, and perceived mattering

   for the perceiver the following day.

4. Perceived responsiveness was hypothesized to moderate and partially *mediate* the link

   between daily reported social support provision and daily reported depression and self-

   esteem. Higher levels of perceived responsiveness were expected to correlate with lower

   levels of depression and higher levels of self-esteem for the perceiver the following day.

5. Higher levels of attachment anxiety were hypothesized to correlate with less perceived

   partner responsiveness on the part of the support recipient and lower levels of intimacy,

   relationship satisfaction, and perceived mattering.

6. More frequent provision of practical support (regardless of visibility) was hypothesized to correlate with higher ratings of daily tangible progress on stressors for the recipient on the following day.

7. Relationship characteristics (satisfaction, intimacy, perceived mattering, and perceived responsiveness) were hypothesized to *moderate* the effects of social support on changes in depressive symptoms, such that visible support would lead to fewer depressive symptoms in relationships with higher levels of these characteristics.

*Control Variables*

To ensure the closest possible replication of the conditions of Bolger et al. (2000), a number of control variables were included in relevant analyses. All analyses controlled for the number of days since the subject began participation, whether the day was a weekday or weekend, whether a stressful situation had occurred that day, and the subject's current level of the variable being predicted.  Temporal control variables were included because Shrout, Gleason, and Bolger (2007) found that levels of depression are generally higher during the first three days of a diary study, while Gleason, Iida, Shrout, and Bolger (2008) have reported that perceived closeness is typically reported as higher on weekends than weekdays. Presence of a stressful situation was controlled for due to its confounding with social support. Controlling for distressing situations ensures that any relationship between support and negative outcomes is not merely an artifact of the high correlation between stress and provided support. It should be noted that in analyses of change in outcome variables between days x-1 and x (such as depressive symptoms), stressful situations occurring on day x-1 were used, while in analyses of level of outcome variables on day x (such as received emotional support), stressful situations occurring on day x were used. Current

levels of the outcome variable were controlled for to minimize carryover effects associated with the previous day's level of that variable.

*Personality and Relationship Variables*

In addition to the above control variables, a number of personality variables and relationship characteristics were included in the analyses. Initial levels of negative affectivity and relationship satisfaction of both partners were controlled. Negative affectivity has been associated with a variety of relationship outcomes (see Buss, 1991 or Dehle & Landers, 2005 for examples) and has been shown to directly influence support interactions (Pasch, Bradbury, & Davila, 1997), and is controlled to reduce the effects of this perceptual bias on evaluations of received and provided support. Initial levels of relationship satisfaction were controlled to prevent halo effects (Nisbett & Wilson, 1997) in which partners' overall evaluations of each other might cloud their judgments of specific relationship qualities and transactions (called sentiment override within the relationship literature; Frazier, Tix, & Barnett, 2003). Perceptions of partner responsiveness were also included in the model to assess hypothesis 4. Inclusion of these variables did not alter the pattern of analysis results, and so only the full models will be discussed and presented.

All analyses predicting the next day's level of relationship outcome variables controlled for subject and partner levels of attachment avoidance anxiety to assess hypotheses two and five. They also controlled for initial relationship satisfaction, initial levels of the construct of interest, perceptions of partner responsiveness, conflict, and partner reported responsiveness. Initial levels of relationship satisfaction were controlled to prevent halo effects (see above), while initial levels of constructs of interest were controlled to minimize carryover effects. Partner perceptions of responsiveness were controlled to address hypotheses three and four, while conflict was controlled due to its impact on mood, relationship quality, and support provision.

**METHODS**

*Participants*

Students enrolled in psychology courses at Iowa State University signed up online to participate in a two-week study of daily couple life along with their romantic partners. Enrollment was limited to heterosexual couples in which both members (1) lived in Ames during the school year and (2) were at least 18 years old. The first 99 couples who completed the initial phase were enrolled in the study, with the expectation that 30% of these couples would likely drop out by the end of the study period (Bolger, Zuckerman, & Kessler, 2000). In the present study, 89 couples provided data for all three phases of the study, resulting in a drop-out rate of 11%. The average age of the men was 20 ($\sigma = 1.57$) while the average age of the women was 19 ($\sigma = 1.24$). The vast majority (95%) were enrolled as students, with 77% being freshman or sophomores. The majority of the sample was Caucasian (89%), with 4% of the sample identifying as Black, 4% identifying as Asian, and 3% identifying as multiracial or other. Participants reported interacting for an average of 3.83 hours in person ($\sigma = 1.38$) and 2.29 hours online or via telephone ($\sigma = 0.81$) each day. All available data were used in analyses, regardless of level of participation. Missing data was not imputed, as this was unnecessary for the analyses used. Copies of initial packet measures can be found in Appendix A, while daily diary measures can be found in Appendix B. An additional measure only included in the follow-up packet can be found in Appendix C.

*Initial and Follow-up Measures*

*Attachment.* The Experiences in Close Relationships scale (ECR; Brennan, Clark, & Shaver, 1998) is a 36-item self-report measure of adult attachment style consisting of two 18-item subscales. Respondents answer each question on a 7-point Likert-type scale ranging from

(1) *disagree strongly* to (7) *agree strongly*. For each item, participants rate how well the statement describes their typical feelings in romantic relationships. The ECR was developed by administering multiple adult attachment measures to a large undergraduate sample and factor-analyzing the results. Using principal components analysis, the authors extracted two factors which they labeled attachment anxiety and attachment avoidance. The developers report coefficient alphas of .91 and .94 for the anxiety and avoidance subscales, respectively. In a study of changes in attachment style among college freshmen, Lopez and Gormley (2002) obtained test-retest reliabilities of .68 and .71 over one semester for the anxiety and avoidance subscales, respectively. The ECR is predictive of theoretically related constructs such as emotional reactivity and emotional cutoff (Wei, Vogel, Ku, & Zakalik, 2005). Attachment anxiety is assessed by items such as "I worry about being abandoned", while attachment avoidance is assessed by items such as "I prefer not to show my partner how I feel deep down." Coefficient alphas in the present study were .89 for anxiety and .92 for avoidance.

*Intimacy*. The Miller Social Intimacy Scale (MSIS; Miller & Lefcourt, 1982) is a 17-item self-report measure of intimacy originally designed for use with college students and married couples. Respondents answer each question (e.g., "how often do you feel close to him/her") on a 4-point Likert-type scale, rating the frequency of certain behaviors and affective experiences in their relationship. Scores correlate positively with measures of trust and negatively with measures of loneliness (Miller & Lefcourt, 1982). The developers report a Cronbach alpha of .91 and a two month test-retest reliability of .96. Coefficient alpha in the present study was .93.

*Perceived mattering*. The Mattering to Romantic Others Questionnaire (MTROQ; Mak & Marshall, 2004) is a 17-item self-report measure of how important a person believes he or she is to his or her romantic partner (sample items include "I am missed by my romantic partner when I

am away" and "My romantic partner is often too busy for me (reverse scored)". Respondents answer each question on a 5-point Likert-type scale, rating how well the statement describes their beliefs about their partners' behaviors and feelings. The developers report a coefficient alpha of .83, and have demonstrated the measure's theoretical validity in that it is positively associated with relationship satisfaction, investment size, and perceived quality of alternative romantic partners. Coefficient alpha in the present study was .89.

*Relationship satisfaction*. Relationship satisfaction was assessed using the Dyadic Adjustment Scale (DAS; Spanier, 1976), a 32-item relationship adjustment scale that measures aspects of relationship satisfaction, cohesion, consensus, and expression of affection. Its validity and reliability have been demonstrated in a number of studies, for example, a study by Cutrona, Shaffer, Wesner, & Gardner (2007) who found it was positively associated with measures of partner sensitivity and negatively associated with non-matching support provided by romantic partners. The authors reported a coefficient alpha of .85 for that study. Coefficient alpha in the present study was .92.

*Negative Affectivity*. Negative affectivity was assessed using the 6-item negative affectivity subscale of the Type D Scale-14 (DS-14; Denollet, 2005). Respondents answer each question (i.e., "I often make a fuss about unimportant things" and "I often find myself worrying about something") on a 4-point scale, with responses ranging from "false" to "true". Factor analyses demonstrate that the subscale matches well with other measures of Negative Affectivity and it is unaffected by changes in depressive symptoms (Denollet, 2005). Coefficient alpha in the present study was .79.

*Responsiveness*. Perceptions of typical partner responsiveness over the past month were assessed using 12 items created for this study to assess the dimensions of responsiveness

discussed earlier (understanding, validation, and self-sacrifice), with four items for each dimension. The understanding and validation items ("Your partner showed that he or she understood your thoughts and feelings" and "Your partner showed respect for your feelings about something", respectively) were modeled after descriptions of support behaviors provided in the Social Support Behavior Code (Suhr, Cutrona, Krebs, & Jensen, 2004), while the self-sacrifice items ("Your partner put your needs before his or her own") were modeled after theoretical descriptions of the constructs (Van Lange et al, 1997). Responses are given to each item on a 4-point Likert-type scale ranging from (1) *disagree strongly* to (4) *agree strongly,* with an additional option of (5) *not applicable*. Coefficient alpha in the present study was .83.

*Self-esteem.* Participants' self-esteem was assessed using the Rosenberg Self-Esteem Scale (Rosenberg, 1965). The scale consists of 10 items (e.g., "I feel that I have a number of good qualities") to which participants respond on a 4-point Likert-type scale ranging from (1) *disagree strongly* to (4) *agree strongly*. A number of studies have demonstrated the reliability and validity of the measure (see Blascovich & Tomaka, 1991, for a review). Coefficient alpha in the present study was .89.

*Upcoming tangible stressor.* Participants were asked to identify a specific tangible stressor that they intended to make progress towards resolving over the next two weeks. They were also asked to rate its initial level of resolution, from *0% resolved* to *100% resolved*. At follow-up, participants were again asked to measure their perceived level of resolution.

*Daily Diary Measures*

*Daily Stressors and Conflict*. The presence of daily stressors and conflicts between romantic partners were measured with the items "In the past 24 hours, have you experienced any events or situations (for which you do not blame your partner) that caused you to feel worry,

concern, disappointment, or unhappiness?" and "In the past 24 hours, has your partner done anything that caused you to feel worry, concern, disappointment, or unhappiness?", respectively.

*Depression.* Depressed mood was measured using four items from the Profile of Mood States (Lorr & McNair, 1971), as described in Bolger, Zuckerman, and Kessler (2000). These items measure the extent to which participants feel "sad", "discouraged", "hopeless", and "worthless." Participants are asked to rate each item on a scale from (0) *not at all* to (4) *extremely* with regards to the past 24 hours. Daily scores are obtained by averaging participant responses to the four items. The internal consistency for this scale has been reported as .78 or higher over a period of four weeks in a similar daily diary study by Shrout, Herman, and Bolger (2006). A significant association between this measure of depressed mood and the receipt of visible support was found in two studies (Bolger, Zuckerman, & Kessler, 2000; Shrout, Herman, & Bolger, 2006). In the present study, the first-day coefficient alpha was .75.

*Intimacy.* Participants separately rated their level of emotional and physical closeness to their partner each day on a 4-point Likert scale ranging from 0 to 4, based on the measure used by Gleason, Iida, Shrout, and Bolger (2008) in a similar daily diary study. Cronbach's alpha for the items in the previous study were reported as ranging from .68 to .71. These items were then averaged to create a single measure of intimacy. In the present study, the first-day coefficient alpha was .76.

*Perceived mattering.* The Mattering to Romantic Others Questionnaire (MTROQ; Mak & Marshall, 2004) is described above. A summary item ("I matter to my romantic partner") was included in the daily diary portion of the study to assess daily perceptions of perceived mattering.

*Changes in tangible stressor.* Participants' progress toward resolving the stressor identified during the first phase of the study was assessed using a single item asking participants to rate the degree to which it has been resolved, from *0% resolved* to *100% resolved*.

*Relationship satisfaction*. Participants' satisfaction with their romantic relationships was assessed using a single global item from the Dyadic Adjustment Scale (DAS; Spanier, 1976), described above.  The item asks participants to rate their overall degree of happiness with the relationship on a 7-point Likert-type scale ranging from (0) *Extremely Unhappy* to (6) *Perfect*.

*Responsiveness.* Daily perceptions of partner and one's own responsiveness were assessed with three items pulled from the responsiveness measure devised for use in the pre-test and post-test portions of this study. Understanding was assessed with the item "Today, your partner showed that he or she understood your thoughts and feelings." Validation was assessed with the item "Today, your partner showed respect for your feelings about something." Self-sacrifice was assessed with the item "Today, your partner did something for you that was inconvenient for him/her." Respondents answer each item on a 4-point Likert-type scale ranging from (1) *disagree strongly* to (4) *agree strongly*, with an additional option of (5) *not applicable*. In the present study, the first-day coefficient alpha was .66 for perceived partner responsiveness and .61 for one's own responsiveness.

*Self-esteem.* The Rosenberg Self-Esteem Scale (Rosenberg, 1965), is described above. The three items with the highest item-total correlations were included in the daily diary portion of the study. In the present study, the first-day coefficient alpha was .64.

*Support provision and receipt*. Participants' provision and receipt of nurturant and instrumental support were assessed following the single-item method reported by Bolger, Zuckerman, and Kessler (2000). Target students and their romantic partners reported whether

they themselves (1) "listened to and comforted their partner" and (2) "did something practical or concrete to help their partner" over the past 24 hours. Each partner also reported whether their partners provided either of these supportive behaviors to them over the past 24 hours. It is important to note that support providers and recipients might both acknowledge support had been given on a specific day, yet be referring to completely separate interactions.

*Procedure*

Participating couples were given an initial packet of questionnaires (see Appendix A) containing measures of adult attachment style, perceived partner supportiveness, perceived mattering, relationship satisfaction, relationship intimacy, and self-esteem. Participants then identified a specific stressor towards which they hoped to make progress over the next two weeks. They then received instructions regarding how to complete a daily diary of their support experiences, mood, and feelings towards their partners (see Appendix B). Student participants received credit towards their course requirements, while their partners received monetary compensation ($5 for completion of the initial questionnaire packet and up to $20 for completion of the daily diaries).

Daily diary participants were given a website address on which to complete daily reports of their received and provided support for a period of two weeks. Each day they rated their perceived partner responsiveness, depressive symptoms, self-esteem, intimacy, relationship satisfaction, and perceived mattering, as well as their progress on the stressor identified during the first phase of the study. After the end of the two weeks, student participants (but not their partners) completed a final packet which included questions regarding their progress towards resolving the stressor identified during the first phase of the study (see Appendix C).

**RESULTS**

Means and standard deviations for study measures are presented in Table 1.1 while
correlations among study measures are presented in Table 1.2 (Appendix D). Results were
analyzed using the PROC MIXED procedure within the SAS program to test each hypothesis,
with models being run separately for men and women. All models were multilevel in that
individual ratings were nested within couples, which were in turn nested within days. Support
variables were mean-centered for the purposes of all analyses except those for hypothesis 6 to
preserve compatibility with previous work on support visibility. The impact of *visible support*
was assessed using recipient reports of received support. The impact of invisible *support* was
assessed using an interaction term between reports of received and provided support, controlling
for the main effect of both terms. Results for all analyses can be found in Appendix D.

*Evaluation of Hypotheses*

    *Hypothesis 1.* Invisible support would be associated with increased self-esteem and
decreased depressive symptoms the next day, while visible support would be associated with
decreased self-esteem and increased depressive symptoms the next day. This hypothesis was not
supported. For men, support receipt (e.g., visible support) was associated with *decreased* levels
of depression and *increased* self-esteem the following day ($p < .05$ and $p < .001$, respectively).
While support provision overall was associated with decreases in men's self-esteem the next day
($p < .05$), invisible support had no significant effect upon depression or self-esteem. For women,
neither visible nor invisible support was not associated with changes in either depression or self-
esteem.  See Table 2.1.1 for analyses of the effects of support upon depression and Table 2.1.2
for analyses of its effects upon self-esteem.

*Hypothesis 2.* Attachment avoidance was hypothesized to be associated with frequency of support recognition, such that individuals with higher levels of attachment avoidance would report receiving support less frequently. This hypothesis was supported for both men and women – when controlling for partners' reports of provided support, individuals with higher levels of attachment avoidance reported receiving less overall support throughout the period covered by the daily diary ($p < .01$ for both men and women). However, gender differences emerged when looking at specific forms of support. For men, higher levels of attachment avoidance were associated with reports of receiving less *practical support* ($p < .05$), while for women it was associated with reports of receiving less *emotional support* ($p < .05$).  See Table 2.3.1 for analyses of the effects of attachment avoidance upon overall support, Table 2.3.2 for its effects upon practical support, and Table 2.3.3 for its effects upon emotional support.

*Hypothesis 3.* Perceived responsiveness was hypothesized to mediate the link between social support provision and intimacy, relationship satisfaction, and perceived mattering such that social support provision would only influence these relationship factors to the degree that it influenced perceptions of partner responsiveness. This hypothesis was not supported, as no relation was found between perceived responsiveness and changes in intimacy, relationship satisfaction, or perceived mattering (and thus, no mediation effect was possible). Contrary to expectations, provided support was *negatively* associated with relationship satisfaction for men. Similarly, received support was associated with *decreases* in intimacy for women. Interestingly, however, to the degree that participants (both men and women) reported *being* responsive, their partners experienced increases in relationship satisfaction ($p < .05$ for each gender). See Table 2.2.1 for analyses of the effects of perceived responsiveness upon relationship satisfaction, Table 2.2.2 for its effects upon perceived mattering, and Table 2.2.3 for its effects upon intimacy.

*Hypothesis 4.* Perceived responsiveness was also hypothesized to mediate the link between social support provision and depression and self-esteem, such that individuals who perceived their partners as being supportive would not experience increased depression or decreased self-esteem in reaction to receiving support. This hypothesis was not supported, as no relation was found between perceived responsiveness and subsequent levels of depression or self-esteem for men or women. See Table 2.1.1 for analyses of the effects of perceived responsiveness upon depression and Table 2.1.2 for its effects upon self-esteem.

*Hypothesis 5.* Attachment anxiety was hypothesized to be associated with lower levels of perceived partner responsiveness, intimacy, relationship satisfaction, and perceived mattering. This hypothesis was not supported. However, higher levels of attachment avoidance were associated with lower levels of perceived responsiveness for both men and women ($p < .001$ and $p < .05$, respectively). The female partner's level of attachment avoidance was also negatively associated with levels of perceived mattering for both men and women ($p < .01$ for each gender). No relation, however, was found between attachment avoidance and relationship satisfaction or intimacy. See Table 2.2.1 for analyses of the effects of attachment variables upon relationship satisfaction, Table 2.2.2 for their effects upon perceived mattering, Table 2.2.3 for their effects upon intimacy, and Table 2.2.4 for their effects upon perceived partner responsiveness.

*Hypothesis 6.* Provided practical social support was hypothesized to be associated with increased progress on resolving tangible stressors. This hypothesis was partially supported. For men, partner reports of provided support were unrelated to progress towards resolving tangible stressors. However, men's reports of received practical support from their partners were associated with progress towards resolution ($p < .05$). For women, neither reports of received nor provided support were associated with progress. As expected, no relation was found between

provision or receipt of emotional support and progress towards resolution of stressors for either

gender. See Table 2.4.1 for analyses of the effects of overall social support upon progress, Table

2.4.2 for the effects of practical support, and Table 2.4.3 for the effects of emotional support.

*Hypothesis 7.* Relationship characteristics (satisfaction, intimacy, perceived mattering,

and perceived responsiveness) were hypothesized to moderate the effects of social support on

changes in depressive symptoms. Overall, this hypothesis was partially supported. Men who felt

more intimacy in their relationships benefited more from their partner's support (p < .01). While

women's feelings of intimacy were associated with decreases in depressive symptoms (p <.01),

this main effect was not qualified by an interaction. Men's (but not women's) perceived

mattering was associated with decreases in depressive symptoms (p < .05), but this was not

qualified by a significant interaction with support provision. No relation was found between

perceived responsiveness or relationship satisfaction and changes in depressive symptoms for

either men or women. See Table 2.5.1 for a main effects model of the effects of relationship

characteristics upon depression and Table 2.5.2 for the full model.

*Evaluation of Control Variables*

*Day*: Men and women reported greater relationship satisfaction ($p < .05$ and $p < .01$,

respectively) and increased rates of progress towards resolving stressors ($p < .001$ for both

genders) later in the study. Men also reported fewer increases in depressive symptoms ($p < .01$)

and more received support ($p < .05$) as the study progressed. See Table 2.1.1 for analyses of the

effects of day upon depression, Table 2.2.1 for analyses of its effects upon relationship

satisfaction, Table 2.3.1 for analyses of its effects upon overall received support, and Table 2.4.1

for analyses of its effects upon change in progress towards resolving stressors.

*Weekend*: Men and women reported higher levels of perceived intimacy ($p < .05$ and $p < .01$ for men and women, respectively) during weekends. Women also reported higher levels of perceived responsiveness ($p < .05$). See Table 2.2.3 for analyses of the effects of weekends upon intimacy and Table 2.2.4 for analyses of their effects upon perceived responsiveness.

*Stressful situation*: Stressful situations were associated with increases in received emotional support for men ($p < .05$) and decreases in self-esteem and increases in perceived responsiveness for women ($p < .05$ for each variable). See Table 2.1.2 for analyses of the effects of stressful situations upon self-esteem, Table 2.2.4 for their effects upon perceived responsiveness, and Table 2.3.2 for analyses of their effects upon received emotional support.

*Conflict*: Relationship conflict did not predict changes in relationship satisfaction, perceived mattering, or intimacy for men or women in the present study. See Table 2.2.1 for the analyses of the effects of conflict upon relationship satisfaction, Table 2.2.2 for its effects upon perceived mattering, and Table 2.2.3 for its effects upon intimacy.

*Individual and Partner Negative Affectivity:* Negative affectivity was associated with greater increases in depressive symptoms for both men and women ($p < .05$ and $p < .001$, respectively). It was also associated with greater decreases in self-esteem for both genders ($p < .001$ and $p < .01$, respectively). For men, it was also associated with greater increases in perceived mattering during the study ($p < .01$). See Table 2.1.1 for analyses of the effects of negative affectivity upon depression, Table 2.1.2 for analyses of its effects upon self-esteem and Table 2.2.2 for its effects upon perceived mattering.

Partner negative affectivity was associated with greater increases in depressive symptoms among men ($p < .05$) and greater decreases in self-esteem among women ($p < .05$). It was also associated with greater increases in perceived mattering among women ($p < .05$). See

Table 2.1.1 for analyses of the effects of partner negative affectivity upon depression, Table 2.1.2 for analyses of its effects upon self-esteem, and Table 2.2.2 for its effects upon perceived mattering.

*Individual and Partner Relationship Satisfaction:* Initial levels of relationship satisfaction were associated with greater increases in relationship satisfaction for both men and women ($p < .001$ and $p < .001$, respectively). For men, they were also associated with greater increases in intimacy ($p < .001$). For women, they were also associated with greater increases in perceived mattering ($p < .001$). Initial levels of partner relationship satisfaction were not significantly related to any of the outcomes examined. See Table 2.2.1 for the analyses of the effects of initial relationship satisfaction current relationship satisfaction, Table 2.2.2 for its effects upon perceived mattering, and Table 2.2.3 for its effects upon intimacy.

*Comparison with Previous Studies*

Shrout, Herman, and Bolger (2006) reported overall correlations of .22 and .21 between reports of receipt and provision of emotional and practical support, respectively. Correlations by gender were not provided, though 66% of the support providers were noted to be female. In the present study, the correlation between reports of receipt and provision of emotional support were .36 for male-provided support and .38 for female-provided support. The correlation between reports of receipt and provision of practical support were .35 for male-provided support and .36 for female-provided support. Gleason, Iida, Bolger, & Shrout (2003) reported that test-takers in the Bolger study acknowledged receiving support 50% of days, while their partners reported providing support on 53% of days. In the present study, men reported providing support 89% of days and receiving support 83% of days. Women reported providing support 89% of days and receiving support 90% of days.

**DISCUSSION**

*Support Visibility*

This study was originally intended to replicate and extend previous research on how support visibility impacts the effects of social support by incorporating measures of perceived partner responsiveness. However, support visibility operated very differently in this sample of undergraduate college students than it did in a sample of law students studying for the bar exam. Where visible support was associated with increased depressive symptoms for Bolger's sample, it was associated with decreases in these symptoms for men and unrelated to changes in symptoms for women in the present study.

A number of factors may be responsible for this difference in findings. The law students in Bolger's sample may have a very different cluster of personality traits than those in my sample, which was comprised primarily of undergraduate students. The competitive nature of the legal process could very well cross over into the law students' personal lives, increasing the likelihood that social support would be interpreted as a threat to one's competence. This may explain why participants in Bolger's sample were less likely to agree on support provision – the law students may have had a more difficult time acknowledging support when it was provided. Alternately, their partners may have made a more concerted attempt to provide invisible support. It may also reflect differences in ages and relationship durations between the samples – all of the participants in the research conducted by Bolger and his colleagues were all cohabiting, and 2/3 were married (Shrout, Herman, & Bolger, 2006), while the participants in the present study were dating couples who may have only met a few months before beginning the study. Invisible support may be a more important component of more established relationships. Further research

with community samples would be helpful in determining whether the pattern of results obtained

with law students or undergraduates exists for the general population.

Alternately, the discrepancy in findings may reflect differences in the nature of the

stressors faced by the samples. The law students in Bolger's study were facing a stressful and

high-stakes exam designed to assess their capacity to pursue their chosen profession. During the

time of the study, these students were highly sensitized to threats to their perceived competence.

To the degree that the negative impact of visible support stems from its effects on feelings of

competence, support visibility should become more important in more stressful situations which

pose a greater threat to one's sense of competence. The students in the current sample had no

such life-altering event on the horizon, and were thus significantly less reactive to perceived

threats to their self-efficacy. While analyses conducted only with those participants with a higher

than mean level of reported distress, this subsample was still very unlikely to be experiencing the

sample level of competency threat experienced by Bolger's sample. Follow-up research with

groups of students facing specific significant stressors, such as academic probation or expulsion,

would help rule out this possible confound.

Regardless of the reasons, the present findings demonstrate that awareness of support is

not inherently damaging. While support receipt can potentially undermine one's self-esteem and

sense of competence, it in fact increased self-esteem among men in this sample. Support receipt

can also strengthen one's relationships and well-being. In fact, reports of received support were

associated with higher levels of perceived responsiveness for both men and women. This again

underscores the importance of skillful support provision. Potential support providers need to

attend to the recipients' needs for both competence and connection. Additional research will be

necessary to identify which cues best indicate whether support should be provided in a visible manner.

*Gender Differences in the Effects of Support and Relationship Quality*

While women's reports of receiving support were unrelated to changes in their depressive symptoms, men reported feeling *fewer* depressive symptoms the day after they acknowledged receiving support from their partners. Men who felt more connected to their partners were better able to benefit from social support. They showed greater decreases in depressive symptoms when their partners provided support in comparison to men who felt less connected. This partially replicates findings obtained by Gleason et al. (2008), who found that both men *and* women in relationships characterized by higher levels of intimacy reacted more positively to received support. To the degree men felt important to their partners, their levels of depression also tended to decrease. While the gender difference was not predicted, this is consistent with research demonstrating that women tend to view other women as their primary sources of support (Antonucci & Akiyama, 197; Wethington, McLeod, & Kessler, 1987). While the women in this study may be one of the primary sources of support for their boyfriends, the reverse is not necessarily the case (Cutrona, 1996). Fuhrer, Stansfeld, Chemali, and Shipley (1999) found that while women typically receive emotional support from several close friends, men often rely on one close partner. As a result, the men's levels of depressive symptoms may be more sensitive to the degree of support they receive from their romantic partners. Furthermore, marital research suggests that support provided by wives is more likely to promote well-being than support provided by husbands (Cutrona).

While these factors may explain this pattern of results, research on the effects of support has historically demonstrated a greater effect for women than for men. Women are typically

more likely to seek out support when distressed (Ptacek, Smith, & Dodge, 1994), feel less discomfort in asking for it (Thoits, 1991), and are more satisfied with the support they receive (Barbee et al, 1993), whereas men may find it more difficult to request support due to different gender role socialization (DePaulo, 1982). These issues may carry less weight in the current sample simply because the variable measured was *received,* rather than *requested* support. Thus, much of the support which these men received may have been unsolicited, rendering gender differences in support seeking less relevant. A parallel can be drawn to attachment research in which avoidant individuals responded positively to support that they were unable to ask for (Collin & Feeney, 2000). It is also worth noting that more recent research suggests that the magnitude of these gender differences is relatively small, often accounting for less than 1% of the variance in support seeking behaviors (Verhofstadt, Buysse, & Ickes, 2007).

However, this argument does not account for all gender differences in how men and women responded to social support in the present study. Initial relationship satisfaction also influenced changes in individual and relationship outcomes. While those in more satisfying relationships clearly benefited, the effects were dependent upon gender. Men who began the study with higher levels of relationship satisfaction experienced fewer rises in depression and fewer drops in self-esteem. Women who began with higher levels of satisfaction experienced more gains in intimacy and perceived mattering.

Overall, relationship characteristics exert a greater influence on the mental health of women than men (Cutrona, 1996). Marital research has demonstrated that women benefit more strongly than men from having a spouse available to provide support (Husaini et al, 1982), and their well-being is more closely linked to the level of support they receive (Cutrona; Hobfoll, 1991). However, Orth-Gomér and colleagues found that married female cardiac patients report

romantic relationships to be their largest source of stress (2000). To the degree that women are more influenced by their social support interactions, they may also be more vulnerable to the negative impact of relationship stressors (Turner). Given that partners can experience negative interactions while simultaneously receiving high levels of support (Turner, 1994), it is possible that the effects of being supported and the effects of stress associated with maintaining the relationship may have cancelled each other out somewhat for women in this study .

Other researchers have also cast doubt onto the notion that women benefit more from support than do men, suggesting that these findings are an artifact of the way in which support is measured. Acitelli and Antonucci (1994) have suggested that measures of social support used by researchers are more reflective of behaviors preferred by women (e.g., emotional support) than by men. By this token, studies such as the present one, which ask more globally whether any form of emotional or instrumental support has been provided on a given day, may be less susceptible to this bias. Brunstein, Dangelmayer, and Schultheiss (1996) found that while women benefited more from support targeted at relationship goals, men benefited more from support addressing individual goals. The gender differences reported in the present study may then reflect the fact that the stressful situations identified by participants were individual rather than relational in nature.

*Perceived Partner Responsiveness*

Contrary to hypotheses, perceptions of partner responsiveness had no impact on the relation between social support provision and intimacy, relationship satisfaction, or perceived mattering. Thus, individuals who perceived their partners as relatively un-responsive benefited just as much from social support as those who perceived their partners as highly responsive. Instead, to the degree to which participants reported *being* responsive, their partners experienced

increases in relationship satisfaction. Thus, partner responsiveness appears to operate similarly to social support in that awareness of its receipt is not always necessary in order for it to have a positive effect on the relationship.

Perceived responsiveness also failed to mediate the link between provided social support and changes in the recipient's levels of self-esteem or depressive symptoms. Again, those who perceived their partners as relatively un-responsive benefited just as much from social support as those who perceived their partners as highly responsive.

*Social Support and Attachment*

As expected, those with higher levels of attachment avoidance perceived their partners as being less supportive overall. This was true even after controlling for the amount of support their partners actually reported giving. Thus, it is not simply that individuals with avoidant partners provide less support – attachment avoidance truly interfered with the ability to recognize support when it was provided. This supports the notion that attachment avoidance serves as a cognitive filter, reducing one's awareness of events in the relationship. While this avoidance may help block out distressing cues when relationships are troubled, it also inhibits awareness of the positive events when they occur. This in turn can create the impression that one's partner is less responsive or supportive than is actually the case. An interesting gender difference was noted in that avoidant men were less able to notice the provision of practical support while avoidant women were less able to notice the provision of emotional support. This is an unexpected finding, as the literature on attachment theory has typically treated attachment avoidance as a gender-neutral construct. However, it is entirely possible that gender roles may influence the way in which attachment-based cognitive filters are implemented within relationships. Future research will be necessary to evaluate this possibility.

Contrary to predictions, there was no relation between levels of attachment anxiety and perceptions of partner responsiveness, intimacy, relationship satisfaction, or mattering to one's partner. Instead, higher levels of attachment *avoidance* were associated with lower levels of perceived responsiveness among men and lower levels of perceived mattering among women (no effects were found for intimacy or relationship satisfaction). This may again reflect the differing roles of attachment avoidance and attachment anxiety. Attachment avoidance primarily reflects a negative model of others, resulting in a tendency towards deactivating strategies aimed at reducing awareness of potentially disappointing relationship interactions (Mikulincer, Shaver, & Pereg, 2003). This leads individuals to block awareness of relationship events and their emotional reactions (Fuendeling, 1998), which may make it more difficult for them to recall events in which partners were responsive or in which they felt important, and thus lead them to rate these aspects of the relationship as less present. Attachment anxiety, which is associated with a negative model of the self, results in a tendency towards hyperactivating strategies, aimed at martially support from close others. This influences perceptions of support and attributions for why it was provided (Florian, Mikulincer, & Bucholtz, 1995; Sümer & Cozzarelli, 2004). However, it may be more relevant for judgments on whether particular supportive relationship interactions are "good enough" or whether they are likely to continue, rather than perceptions of whether they actually occurred.

*Individual and Partner Negative Affectivity*

Negative affectivity was associated with greater increases in depression and decreases in self-esteem among men and women during the study. This is unsurprising given that negative affectivity represents a susceptibility to negative emotional experiences. Thus, when participants high in this quality experience depressive symptoms or lowered self-esteem, these experiences

are more likely to escalate. For men only, negative affectivity was associated with greater

increases in perceived mattering. This finding is unexpected. Given the lack of any other

relations between negative affectivity and relationship outcome variables, it should be replicated

in other settings before being interpreted.

Partner negative affectivity also had an effect on well-being, though it was more gender

dependent. Men whose partners had higher levels of negative affectivity experienced greater

increases in depression, while women experienced greater decreases in self-esteem. This is

consistent with gender role socialization which places a higher expectation upon women to serve

as caretakers (Cutrona, 1996). Perhaps the women in this study saw their partners' frequent

negative emotional state as a sign of failure on their part to be supportive, leading any pre-

existing self-doubts to escalate. Men whose partners exhibit higher levels of negative affectivity

may have experienced a different set of circumstances. Their female romantic partners are more

likely to serve as their primary source of social support (Cutrona, 1996), and may have been less

able to provide that support due to their struggles with negative emotions. Thus, their support

may have been less effective at buffering against the effects of depression in their partners.

*Tangible Outcomes of Support*.

The prediction that practical support would be associated with progress towards resolving

stressors was partially supported. While men who reported receiving practical support from their

partners made more progress towards their goals, no such effect was found for women.

Furthermore, neither men's nor women's reports of provided support were associated with

progress towards goals. Clearly more research is necessary to determine whether this is statistical

artifact or a true gender difference in the perception of social support. It is important to note that

emotional support was not found to aid progress towards resolution of stressors for men or

women. While a number of studies have demonstrated the importance of emotional support, receiving encouragement and empathy when you really needed a hammer or ride to the airport is unhelpful.

*Limitations*

While the current study expands research on support visibility by including a younger population of dating couples in less-established relationships, it remains difficult to generalize. The current study makes use of a homogenous sample of mostly well-educated Caucasian young college students who likely have similar views and attitudes towards social support, romantic relationships, and their partners. Many of these individuals live in close proximity to a number of friends and support resources. The importance and impact of support from romantic partners may be much higher among individuals with fewer outside sources of support or those facing more significant or debilitating stressors. It may also vary as a function of cultural beliefs about the roles played by men and women or friends, romantic partners, and families.

This study also highlights two ways in which the daily diary method may need to be refined. First, the current definition of visible support seems to encompass two distinct types of support transactions. It refers both to (1) situations in which the recipient and provider both report support has occurred and (2) situations of "imagined" or "forgotten" support in which the recipient reports support has occurred yet the provider makes no such claim. Support which both parties agree has occurred may operate differently than support which providers have either forgotten about or not intentionally provided. This may partially explain differences in findings regarding the impact of support visibility, as different samples may be more likely to report one or another subcategory of visible support.

Similarly, the present daily diary approach to measuring social support does not ensure that recipients and providers are referring to the same support transactions when providing ratings. Thus, a recipient may be rating an event that occurred in the morning while a provider may be referring to an event that occurred in the evening. On a similar note, it should be noted that the practical support reported by study participants was not necessarily specifically aimed at addressing the stressful situation identified by the recipient. It is possible that support recipients may evaluate general practical support differently than practical support aimed specifically at resolving more distressing situations. Requiring participants to identify specific support transactions and note whether they were specifically aimed at resolving identified stressors may allow a better understanding of the factors which determine whether these transactions are viewed as evidence of partner responsiveness.

An additional issue which limits this study is the high colinearity among the variables assessed. By their nature, measures of relationship quality are highly inter-correlated. The use of very brief and even one-item scales in daily diaries, while effective at reducing respondent burden, further increases the chances of sentiment override in which participants respond based upon overall evaluations of their relationships. While researchers have suggested that such sentiment override may lead some participants to become less careful in completing their diaries with time (Bolger, Davis, & Rafaeli, 2003), research suggests this is not problematic with mood diaries (Thomas & Diener, 1990). Still, supporting evidence from studies using more behaviorally anchored measures would be beneficial in ensuring that participants provide separate evaluations of the constructs of interest.

Participant levels of agreement regarding support provision were also quite high, resulting in further colinearity among predictor variables. This is in some ways a positive sign, as

it suggests relationship partners largely agreed on the nature of their interactions. Given this agreement, it is heartening that participants reported providing and receiving support on the vast majority of days (see Table 1.1). However, the relative infrequency with which support recipients reported not receiving support limits the ability of this study to use these variables as effective predictors. Participants in the present study were much more likely to report receiving and providing support than those in Bolger's study. It is possible that this sample of college students were more willing to consider daily interactions as supportive. Consequently, the present study is in some ways a more conservative assessment of the effects of support visibility.

*Directions for Future Research*

The present study demonstrates the importance of attending to personality variables such as attachment avoidance and negative affectivity when attempting to dissect social support transactions and their impact. Further research should expand upon this by examining how specific attitudes and beliefs about relationships and the support process may impact the effects of support or the perception of responsiveness. For example, individuals who are more prone to viewing visible support as a threat to competence may benefit from different approaches to providing support than those who can accept visible support without incurring such self-doubt. More globally, additional research is needed to identify which cues best indicate whether visible or invisible support will best serve specific individuals in specific situations. Gender differences in which specific types of support men and women with high levels of attachment avoidance filter out should also be further explored. To the degree that men and women with attachment avoidance develop different cognitive filters and schemas, they may well evaluate their relationships and support networks using different criteria.

*Applications and Conclusions*

An important outcome of this research is the development of the Partner Responsiveness Scale. Until now, the effects of responsiveness have been difficult to assess as explicit measures of the construct have been unavailable. The creation of such an instrument provides a valuable new tool for couples researchers. Additional research will need to be done further validating the measure, but initial results regarding its reliability and validity are promising. It demonstrates acceptable inter-item and test-retest reliability for use as a predictor of future outcomes, but can also be used to detect daily fluctuations in perceptions regarding one's partner. The measure correlates as expected with related relationship constructs such as perceived intimacy, perceived mattering, and relationship satisfaction.

The second important outcome is my failure to replicate Bolger et al's findings regarding the effects of support visibility. If visible support negatively impacted the recipient's well-being in a majority of situations, this would call for a re-evaluation of when and how care providers who work with couples should teach support skills. Clients already suffering from depressive symptoms would be placed at further risk by receiving support unless their partners were trained to provide support surreptitiously. Fortunately, it does not appear that visible support negatively influences well-being in all situations. It thus becomes important to determine under which specific circumstances visible support has a negative impact, and to identify the specific pathways by which it impacts well-being. This would allow providers to address the factors responsible for the negative impact of support, and thus assist couples develop more beneficial styles of providing support.

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## APPENDIX A: INITIAL PACKET MEASURES

***Please be sure you have filled out the gender, ethnicity, and age portions of your scantrons***

*Partner Responsiveness*

Please respond to each of the following statements by indicating to what degree the statement characterizes your relationship with your romantic partner over the *past month*.

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
| Strongly Disagree | Disagree | Agree | Strongly Agree | Not Applicable |

1. Your partner showed that he or she understood your thoughts and feelings.
2. Your partner showed respect for your feelings about something.
3. Your partner did something for you that was inconvenient for him or her.
4. Your partner showed that he or she didn't understand you in some way.
5. Your partner did what you wanted without your asking.
6. You did something inconsiderate, but your partner did not make a big deal out of it.
7. You were able to explain yourself to your partner.
8. Your partner put down your feelings about something
9. Your partner agreed with your point of view.
10. Your partner did what you wanted to do instead of what he or she wanted to do.
11. Your partner spontaneously did something nice for you.
12. Your partner behaved selfishly
13. Your partner overlooked or ignored something negative that you did.
14. Your partner seemed to know where you were coming from.
15. Your partner stuck up for your views.
16. You had to tell your partner what you wanted in order to get it.
17. Your partner put your needs before his or her own.
18. Your partner gave you a pleasant surprise.
19. Your partner was kind or helpful despite your being in an unpleasant mood.
20. You and your partner fought.

# Experiences in Close Relationships Inventory
## *Brennan, Clark, & Shaver (1998)*

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
| Disagree<br>Strongly | | | Neutral/<br>Mixed | | | Agree<br>Strongly |

The following statements concern how you feel in romantic relationships. We are interested in how you generally experience relationships, not just in what is happening in a current relationship. Respond to each statement by indicating how much you agree or disagree with it.

21.   I prefer not to show a partner how I feel deep down.
22.   I worry about being abandoned.
23.   I am very comfortable being close to romantic partners.
24.   I worry a lot about my relationships.
25.   Just when my partner starts to get close to me I find myself pulling away.
26.   I worry that romantic partners won't care about me as much as I care about them.
27.   I get uncomfortable when a romantic partner wants to be very close.
28.   I worry a fair amount about losing my partner.
29.   I don't feel comfortable opening up to romantic partners.
30.   I often wish that my partner's feelings for me were as strong as my feelings for him/her.
31.   I want to get close to my partner, but I keep pulling back.
32.   I often want to merge completely with romantic partners, and this sometimes scares them away.
33.   I am nervous when partners get too close to me.
34.   I worry about being alone.
35.   I feel comfortable sharing my private thoughts and feelings with my partner.
36.   My desire to be very close sometimes scares people away.
37.   I try to avoid getting too close to my partner.
38.   I need a lot of reassurance that I am loved by my partner.
39.   I find it relatively easy to get close to my partner.
40.   Sometimes I feel that I force my partners to show more feeling, more commitment.
41.   I find it difficult to allow myself to depend on romantic partners.
42.   I do not often worry about being abandoned.
43.   I prefer not to be too close to romantic partners.
44.   If I can't get my partner to show interest in me, I get upset or angry.
45.   I tell my partner just about everything.
46.   I find that my partner(s) don't want to get as close as I would like.
47.   I usually discuss my problems and concerns with my partner.
48.   When I'm not involved in a relationship, I feel somewhat anxious and insecure.
49.   I feel comfortable depending on romantic partners.
50.   I get frustrated when my partner is not around as much as I would like.
51.   I don't mind asking romantic partners for comfort, advice, or help.
52.   I get frustrated if romantic partners are not available when I need them.
53.   It helps to turn to my romantic partner in times of need.
54.   When romantic partners disapprove of me, I feel really bad about myself.

55.    I turn to my partner for many things, including comfort and reassurance.
56.    I resent it when my partner spends time away from me.

## Miller Social Intimacy Scale
*Miller & Lefcourt (1982)*

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|----|

Very                                                          Almost
Rarely                                                        Always

Think of your romantic partner and rate the following items

57.    When you have leisure time, how often do you choose to spend it with him/her alone?
58.    How often do you keep very personal information to yourself and do not share it with him/her?
59.    How often do you show him/her affection?
60.    How often do you confide very personal information to him/her?
61.    How often are you able to understand his/her feelings?
62.    How often do you feel close to him/her?
63.    How much do you like to spend time alone with him/her?
64.    How much do you feel like being encouraging and supportive to him/her when he/she is unhappy?
65.    How close do you feel to him/her most of the time?
66.    How important is it to you to listen to his/her very personal disclosures?
67.    How satisfying is your relationship with him/her?
68.    How affectionate do you feel towards him/her?
69.    How important is it to you that he/she understands your feelings?
70.    How much damage is caused by a typical disagreement in your relationship with him/her?
71.    How important is it to you that he/she be encouraging and supportive to you when you are unhappy?
72.    How important is it to you that he/she shows you affection?
73.    How important is your relationship with him/her in your life?

## Mattering to Romantic Others Questionnaire
*Mak & Marshall (2004)*

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
| Not true for me | | Somewhat true | | True for me |

74.    I feel important to my romantic partner.
75.    I feel I am needed by my romantic partner.
76.    I am missed by my romantic partner when I am away.
77.    My romantic partner doesn't pay much attention to me.
78.    My romantic partner respects my ideas and opinions.
79.    I am interesting to my romantic partner.

80. My romantic partner listens to me.
81. My romantic partner does not think about me when we are apart.
82. My romantic partner frequently ignores me.
83. I matter to my romantic partner.
84. My romantic partner invites me to family gatherings.
85. My romantic partner includes me in activities with friends.
86. My romantic partner frequently contacts me.
87. My romantic partner goes out of his/her way to do things for me.
88. My romantic partner is often too busy for me.

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
| Top | | | | Bottom |

89. People have many activities in their lives to choose from. If your romantic partner made a list of all the activities he/she had to choose from, where do you think that you would be on that list?
90. If your romantic partner made a list of all the things he/she cares about, where do you think you'd be on his/her list?

### Dyadic Adjustment Scale
*Spanier (1976)*

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
| Always Agree | Almost Always Agree | Occasionally Disagree | Frequently Disagree | Almost Always Disagree | Always Disagree | Not Applicable |

Most persons have disagreements in their relationships. Please indicate below the approximate extent of agreement or disagreement between you and your partner for each of item on the following list.

91. Handling finances
92. Matters of recreation
93. Religious
94. Demonstrations of affection
95. Friends
96. Sex relations
97. Conventionality (correct or proper behavior)
98. Philosophy of life
99. Ways of dealing with parents or in-laws
100. Aims, goals, and things believed important
101. Amount of time spent together
102. Making major decisions
103. Household tasks (if applicable)
104. Leisure time interests or activities
105. Career decisions

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| All The Time | Most of The Time | More Often Than Not | Occasionally | Rarely | Never |

106. How often do you discuss or have you considered separation or terminating your relationship?
107. How often do you or your partner leave the house after a fight?
108. In general, how often do you think that things between you and your partner are going well?
109. Do you confide in your partner?
110. Do you ever regret that you began dating (or lived together)?
111. How often do you and your partner quarrel?
112. How often do you and your partner get on each other's nerves?

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
| Every Day | Almost Every Day | Occasionally | Rarely | Never |

113. Do you kiss your partner?

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
| Every Day | Almost Every Day | Occasionally | Rarely | Never |

114. Do you and your partner engage in outside interests together?

How often would you say the following events occur between you and your partner?

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| Never | Less Than Once a Month | Once or Twice a Month | Once or Twice a Week | Once a Day | More Often |

115. Have stimulating exchange of ideas?
116. Laugh together?
117. Calmly discuss something?
118. Work together on a project?

These are things about which couples sometimes agree and sometimes disagree. Indicate if either item below cause differences of opinions or were problems in your relationship during the past few weeks.

| 0 | 1 |
|---|---|
| No | Yes |

119. Being too tired for sex
120. Not showing love

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
| Extremely Unhappy | | | Happy | | | Perfect |

The numbers above represent different degrees of happiness in your relationship. The middle point, "happy", represents the degree of happiness in most relationship. Please provide a rating of your degree of happiness, all things considered, with your relationship.

121. The numbers above represent different degrees of happiness in your relationship. The middle point, "happy", represents the degree of happiness in most relationships. Please provide a rating of your degree of happiness, all things considered, with your relationship.

122. Which of the following statements best describes how you feel about the future of your relationship?
    a. I want desperately for my relationship to succeed, and would go to almost any length to see that it does.
    b. I want very much for my relationship to succeed, and will do all I can to see that it does.
    c. I want very much for my relationship to succeed, and will do my fair share to see that it does.
    d. It would be nice if my relationship succeeded, but I can't do much more than I am doing now to help it succeed.
    e. It would be nice if my relationship succeeded, but I refuse to do any more than I am doing now to keep the relationship going.
    f. My relationship can never succeed, and there is no more than I can do to keep the relationship going.

## Type D Scale-14
*Denollet, J. (2005)*

| 0 | 1 | 2 | 3 | 4 |
|---|---|---|---|---|
| False | Rather False | Neutral | Rather True | True |

123. I often make a fuss about unimportant things
124. I often feel unhappy
125. I am often irritated
126. I take a gloomy view of things
127. I am often in a bad mood
128. I often find myself worrying about something

***Please answer the following questions directly on this paper***

1. How many months have you been with your current romantic partner? _____

*Goals*

Please provide a description of one stress-provoking situations which you hope to make progress towards resolving over the next two weeks.

Description of the stressful situation:

_____

_____

_____

_____

2. On a scale of 0 (no resolution) to 100 (complete resolution), please rate the degree to which this situation has been resolved so far _____

## APPENDIX B: DAILY DIARY MEASURES

1. Please enter your ID number
2. Today, for how many hours did you interact with your romantic partner in person?
3. Today, for how many hours did you interact with your romantic partner online or over the phone?
4. In the past 24 hours, have you experienced any events or situations (for which you do not blame your partner) that caused you to feel worry, concern, disappointment, or unhappiness?
5. In the past 24 hours, has your partner done anything that caused you to feel worry, concern, disappointment, or unhappiness?

Thinking about _today only_, please rate your level of agreement with the following statements.

| 1 | 2 | 3 | 4 |
|---|---|---|---|
| Strongly Disagree | Disagree | Agree | Strongly Agree |

6. Today, your partner showed that he or she understood your thoughts and feelings.
7. Today, your partner showed respect for your feelings about something.
8. Today, your partner did something for you that was inconvenient for him/her.
9. Today, your partner did what you wanted without your asking.
10. Today, your partner overlooked or ignored something negative that you did.
11. I take a positive attitude toward myself.
12. On the whole, I am satisfied with myself.
13. I feel I do not have much to be proud of.

Thinking about _today only_, please rate your level of agreement with the following statement.

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
| Not true for me | | Somewhat true | | True for me |

14. I matter to my romantic partner.

Please rate the degree to which you have felt the following over the _past 24 hours_.

| 1 | 2 | 3 | 4 |
|---|---|---|---|
| Not at All | | | Extremely |

15. Sad
16. Discouraged
17. Hopeless
18. Worthless
19. Emotionally close to your partner

20. Physically close to your partner

21.

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
| Extremely Unhappy | | | Happy | | | Perfect |

22. The numbers above represent different degrees of happiness in your relationship. The middle point, "happy", represents the degree of happiness in most relationships. Please provide a rating of your degree of happiness, all things considered, with your relationship.

Please provide a *Yes* or *No* response to the following four questions.

23. In the past 24 hours, did you listen to and comfort your partner?
24. In the past 24 hours, did you do something practical or concrete to help your partner?
25. In the past 24 hours, did your partner listen to and comfort you?
26. In the past 24 hours, did your partner do something practical or concrete to help you?

Please answer the following two questions on a 0 to 100 scale, as described below (refer to your copy of your goals statement if necessary).

27. On a scale from 0 (completely unresolved) to 100 (completely resolved), to what degree has the stressor you identified before beginning these diaries been resolved?

# APPENDIX C: ADDITIONAL FOLLOW-UP PACKET MEASURE

### *Please answer the following questions directly on this paper*

1. Are you still romantically involved with the romantic partner with whom you entered this study? ___

Think back to the stress-provoking situation which you identified upon entering this study (refer to the sheet we handed to you if necessary).

2. On a scale of 0 (no resolution) to 100 (complete resolution), please rate the degree to which this situation has been resolved so far _____

**APPENDIX D: TABLES OF STATISTICAL RESULTS**

Table 1.1

*Means, Standard Deviations, and paired t-tests for Initial Packet Scales and Support Measures*

| Variable | Male | | Female | | Range | $t(91)$ | p |
|---|---|---|---|---|---|---|---|
| | *M* | *SD* | *M* | *SD* | | | |
| 1. Age | 19.93 | 1.57 | 19.24 | 1.24 | 18-25 | 5.13 | $<.001$ |
| 2. Attachment Anxiety | 63.21 | 18.85 | 64.70 | 17.75 | 21-113 | -0.56 | .578 |
| 3. Attachment Avoidance | 46.45 | 16.35 | 46.20 | 18.90 | 18-96 | 0.12 | .904 |
| 4. Negative Affectivity | 14.56 | 4.09 | 14.95 | 4.89 | 6-28 | -0.93 | .353 |
| 5. Self-Esteem | 32.22 | 4.66 | 31.29 | 5.47 | 10-40 | 1.30 | .198 |
| 6. Intimacy | 136.47 | 19.72 | 143.16 | 20.03 | 70-170 | -3.69 | $<.001$ |
| 7. Perceived Mattering | 66.84 | 7.66 | 64.95 | 7.83 | 40-79 | -1.05 | .297 |
| 8. Relationship Satisfaction | 110.34 | 15.90 | 112.56 | 15.87 | 44-146 | -1.61 | .111 |
| 9. Perceived Partner Responsiveness | 3.05 | 0.41 | 3.16 | 0.46 | 1-4 | -2.01 | .047 |
| 10. Stressor Resolution | 36.14 | 25.75 | 38.87 | 24.75 | 0-100 | -0.71 | .477 |
| 11. Provided Support | 0.89 | 0.31 | 0.89 | 0.32 | 0-1 | 0* | $>.999$ |
| a. Practical Support | 0.73 | 0.44 | 0.70 | 0.46 | 0-1 | 0.60* | .552 |
| b. Emotional Support | 0.82 | 0.39 | 0.79 | 0.41 | 0-1 | 0* | $>.999$ |
| 12. Received Support | 0.83 | 0.38 | 0.90 | 0.31 | 0-1 | -1.62** | .109 |
| a. Practical Support | 0.67 | 0.47 | 0.72 | 0.45 | 0-1 | -1.06** | .292 |
| b. Emotional Support | 0.74 | 0.44 | 0.82 | 0.38 | 0-1 | -1.82** | .073 |
| 13. Initial Progress | 36.83 | 25.64 | 41.46 | 26.62 | 0-90 | -1.05*** | .297 |

* Due to missing data from one or both partners on some days, the degress of freedom for 11, 11a, and 121 are 78, 78, and 76, respectively.

** Due to missing data from one or both partners on some days, the degress of freedom for 12, 12a, and 12b are 78, 79, and 74, respectively.

*** Due to missing data from one or both partners, the degrees of freedom for 13 is 79

Table 1.2.1

*Correlations Among Variables*

| Measure | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. Male Age | - | | | | | | | | | | | | | | | |
| 2. Fem. Age | .44 | - | | | | | | | | | | | | | | |
| 3. Male AA | -.05 | .12 | - | | | | | | | | | | | | | |
| 4. Female AA | .09 | .07 | .04 | - | | | | | | | | | | | | |
| 5. Male AAv | .02 | -.01 | .21 | .15 | - | | | | | | | | | | | |
| 6. Fem. AAv | -.21 | -.25 | .03 | .07 | .35 | - | | | | | | | | | | |
| 7. Male NA | .24 | .02 | .33 | .23 | .39 | .07 | - | | | | | | | | | |
| 8. Female NA | .09 | .06 | .07 | .51 | .41 | .19 | .25 | - | | | | | | | | |
| 9. Male IRS | -.16 | -.01 | -.14 | -.05 | -.60 | -.18 | -.24 | -.29 | - | | | | | | | |
| 10. Fem. IRS | -.03 | -.11 | >.01 | -.19 | -.39 | -.32 | -.21 | -.36 | .60 | - | | | | | | |
| 11. Male IPM | .02 | >.01 | -.05 | .02 | -.47 | -.24 | -.07 | -.06 | .62 | .40 | - | | | | | |
| 12. Fem. IPM | -.09 | >.01 | -.09 | -.34 | -.40 | -.30 | -.26 | -.48 | .35 | .59 | .27 | - | | | | |
| 13. Male II | .04 | .05 | -.02 | .03 | -.61 | -.30 | -.19 | -.17 | .75 | .55 | .64 | .29 | - | | | |
| 14. Female II | .10 | >.01 | -.14 | .01 | -.47 | -.56 | -.13 | -.26 | .55 | .74 | .50 | .41 | .62 | - | | |
| 15. Day | >.01 | .01 | .03 | -.01 | .03 | -.01 | -.01 | -.02 | -.02 | .05 | -.01 | .05 | >.01 | .04 | - | |
| 16. Weekend | >.01 | >.01 | >.01 | .01 | >.01 | >.01 | >.01 | .01 | >.01 | -.02 | .01 | -.02 | >.01 | -.01 | -.12 | - |

*Note.* AA = Attachment Anxiety, AAv = Attachment Avoidance, NA = Negative Affectivity, IRS = Initial Relationship Satisfaction, IPM = Initial Perceived Mattering, II = Initial Intimacy

Table 1.2.2

*Correlations Among Variables, Continued*

| Measure | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 17. Male SS | .08 | -.03 | .03 | .07 | .03 | -.01 | .16 | .06 | -.06 | .06 | .09 | .06 | >.01 | .09 | -.19 | -.01 |
| 18. Fem. SS | .03 | .05 | .04 | .20 | >.01 | -.05 | .21 | .18 | .03 | -.04 | .11 | -.07 | .12 | .11 | -.11 | -.02 |
| 19. Male C | .15 | .01 | .03 | .10 | .23 | -.01 | .15 | .14 | -.28 | -.16 | -.19 | -.19 | -.21 | -.12 | .04 | -.04 |
| 20. Fem. C | >.01 | -.06 | .09 | .16 | .12 | >.01 | .15 | .20 | -.19 | -.24 | -.08 | -.21 | -.17 | -.15 | >.01 | .02 |
| 21. Male D | .05 | .01 | .05 | .14 | .26 | .08 | .24 | .20 | -.30 | -.16 | -.16 | -.10 | -.22 | -.10 | -.07 | .03 |
| 22. Fem. D | -.02 | -.02 | >.01 | .33 | .24 | .23 | .20 | .42 | -.19 | -.30 | -.08 | -.33 | -.16 | -.21 | -.07 | .03 |
| 23. Male SE | -.08 | -.14 | -.15 | -.08 | -.20 | -.05 | -.26 | -.17 | .26 | .14 | .15 | .06 | >.01 | .09 | -.19 | -.01 |
| 24. Fem. SE | -.06 | -.01 | -.01 | -.20 | -.12 | -.06 | -.21 | -.30 | .03 | .09 | -.02 | -.07 | .12 | .11 | -.11 | -.02 |
| 25. MCRS | -.08 | -.02 | -.08 | -.10 | -.35 | -.20 | -.08 | -.20 | .50 | .37 | .42 | .26 | .45 | .39 | .08 | .02 |
| 26. FCRS | -.05 | -.02 | -.03 | -.07 | -.20 | -.14 | -.04 | -.15 | .26 | .35 | .22 | .30 | .30 | .30 | .14 | -.02 |
| 27. Male CM | -.07 | -.02 | -.06 | -.04 | -.38 | -.34 | .02 | -.13 | .47 | .43 | .47 | .24 | .50 | .53 | .12 | .04 |
| 28. Fem. CM | .04 | .04 | .03 | -.15 | -.25 | -.36 | -.02 | -.25 | .31 | .47 | .28 | .44 | .36 | .52 | .05 | .01 |
| 29. Male CI | -.06 | -.02 | -.07 | >.01 | -.37 | -.18 | -.08 | -.20 | .50 | .34 | .40 | .24 | .31 | .35 | -.04 | .03 |
| 30. Fem. CI | -.09 | -.11 | -.02 | -.05 | -.23 | -.15 | -.02 | -.21 | .34 | .39 | .27 | .29 | .28 | .39 | -.01 | .03 |
| 31. Male PR | -.08 | -.07 | -.12 | -.05 | -.33 | -.19 | -.13 | -.21 | .42 | .28 | .28 | .16 | .32 | .28 | -.01 | -.01 |
| 32. Fem. PR | .03 | .06 | -.03 | .04 | -.23 | -.16 | -.05 | -.12 | .30 | .32 | .20 | .11 | .26 | .31 | -.04 | .03 |

*Note.* SS = Stressful Situation, C = Conflict, D = Depressed Mood, SE = Self Esteem, MCRS = Male Current Relationship Satisfaction, FCRS = Female Current Relationship Satisfaction, CM = Current Perceived Mattering, CI = Current Intimacy, PR = Perceived Partner Responsiveness

Table 1.2.3

*Correlations Among Variables, Continued*

| Measure | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 33. Male R | .02 | .06 | -.04 | .05 | -.20 | -.17 | -.05 | -.09 | .30 | .29 | .17 | .06 | .25 | .29 | -.03 | -.01 |
| 34. Female R | -.06 | -.08 | -.12 | .15 | .05 | .06 | -.02 | 06 | .05 | .02 | >.01 | -.04 | .01 | .01 | .19 | -.05 |
| 35. Male PR | .02 | -.07 | -.02 | -.08 | .09 | .13 | -.11 | -.04 | -.03 | .01 | -.13 | -.08 | -.03 | -.14 | .33 | -.07 |
| 36. Fem. PR | .04 | -.06 | -.01 | -.01 | -.23 | -.24 | .04 | -.13 | .27 | .21 | .29 | .13 | .28 | .29 | -.01 | -.05 |
| 37. Male PS | .03 | .11 | .07 | >.01 | -.15 | -.21 | .04 | -.12 | .17 | .17 | .10 | .10 | .13 | .20 | -.04 | >.01 |
| 38. Fem. PS | >.01 | -.04 | .02 | -.04 | -.22 | -.24 | >.01 | -.16 | .26 | .20 | .27 | .14 | .24 | .26 | .01 | -.03 |
| 39. Male PE | .02 | .08 | .06 | >.01 | -.15 | -.21 | .03 | -.13 | .18 | .20 | .08 | .12 | .11 | .20 | >.01 | -.01 |
| 40. Fem. PE | .02 | .06 | -.04 | .05 | -.20 | -.17 | -.05 | -.09 | .30 | .29 | .17 | .06 | .25 | .29 | -.03 | -.01 |
| 41. Male PP | .07 | -.02 | -.04 | >.01 | -.21 | -.21 | .02 | -.16 | .24 | .18 | .24 | .14 | .25 | .28 | .04 | -.04 |
| 42. Fem. PP | .06 | .10 | .02 | -.01 | -.10 | -.18 | .09 | -.08 | .14 | .16 | .11 | .03 | .09 | .16 | .05 | .02 |
| 43. Male. RS | .01 | -.02 | -.02 | -.04 | -.22 | -.21 | .02 | -.16 | .28 | .18 | .26 | .10 | .25 | .27 | -.01 | >.01 |
| 44. Fem. RS | .04 | .12 | .05 | .02 | -.17 | -.18 | .02 | -.03 | .21 | .20 | .16 | .08 | .17 | .20 | -.03 | -.01 |
| 45. Male. RE | -.05 | >.01 | >.01 | -.06 | -.21 | -.19 | >.01 | -.17 | .30 | .18 | .24 | .13 | .22 | .25 | .02 | .01 |
| 46. Fem. RE | .01 | .08 | .07 | .02 | -.14 | -.17 | .01 | -.07 | .22 | .23 | .14 | .10 | .16 | .21 | -.01 | >.01 |
| 47. Male RP | .02 | -.02 | -.05 | -.04 | -.18 | -.19 | >.01 | -.18 | .25 | .17 | .23 | .11 | .23 | .26 | .04 | -.02 |
| 48. Fem. RP | .05 | .09 | >.01 | .01 | -.15 | -.15 | .05 | -.06 | .19 | .19 | .15 | .08 | .15 | .18 | .01 | -.02 |

*Note.* R = Responsiveness, PR = Problem Resolution, PS = Provided Support, PE = Provided Emotional Support, PP = Provided Practical Support, RS = Received Support, RE = Received Emotional Support, RP = Received Practical Support

Table 1.2.4

*Correlations Among Variables, Continued*

| Measure | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 17. Male SS | - | | | | | | | | | | | | | | | |
| 18. Fem. SS | .15 | - | | | | | | | | | | | | | | |
| 19. Male C | .04 | .04 | - | | | | | | | | | | | | | |
| 20. Fem. C | .02 | .13 | .47 | - | | | | | | | | | | | | |
| 21. Male D | .30 | .13 | .25 | .20 | - | | | | | | | | | | | |
| 22. Fem. D | .11 | .35 | .20 | .29 | .34 | - | | | | | | | | | | |
| 23. Male SE | -.13 | -.06 | -.09 | -.09 | -.25 | -.15 | - | | | | | | | | | |
| 24. Fem. SE | >.01 | -.12 | -.08 | -.19 | -.05 | -.25 | .16 | - | | | | | | | | |
| 25. MCRS | -.08 | .02 | -.29 | -.24 | -.27 | -.24 | .22 | .10 | - | | | | | | | |
| 26. FCRS | -.05 | -.08 | -.20 | -.36 | -.16 | -.27 | .06 | .13 | .05 | - | | | | | | |
| 27. Male CM | .01 | .05 | -.22 | -.20 | -.24 | -.22 | .18 | .03 | .56 | .35 | - | | | | | |
| 28. Fem. CM | .04 | .02 | -.19 | -.26 | -.20 | -.28 | .06 | .07 | .38 | .47 | .55 | - | | | | |
| 29. Male CI | -.09 | .01 | -.24 | -.17 | -.18 | -.17 | .24 | .04 | .62 | .31 | .50 | .30 | - | | | |
| 30. Fem. CI | -.02 | -.06 | -.25 | -.30 | -.17 | -.22 | .11 | .05 | .43 | .51 | .40 | .47 | .53 | - | | |
| 31. Male PR | -.06 | -.09 | -.23 | -.23 | -.19 | -.20 | .25 | .05 | .44 | .23 | .40 | .20 | .55 | .34 | - | |
| 32. Fem. PR | -.03 | >.01 | -.16 | -.25 | -.08 | -.15 | .10 | .12 | .31 | .40 | .26 | .29 | .36 | .46 | .38 | - |

*Note.* SS = Stressful Situation, C = Conflict, D = Depressed Mood, SE = Self Esteem, MCRS = Male Current Relationship Satisfaction, FCRS = Female Current Relationship Satisfaction, CM = Current Perceived Mattering, CI = Current Intimacy, PR = Perceived Partner Responsiveness

Table 1.2.5

*Correlations Among Variables, Continued*

| Measure | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 33. Male R | -.03 | -.02 | -.12 | -.15 | -.14 | -.12 | .22 | .06 | .38 | .21 | .34 | .20 | .49 | .31 | .69 | .37 |
| 34. Female R | -.05 | >.01 | -.15 | -.19 | -.09 | -.09 | .06 | .11 | .27 | .31 | .25 | .25 | .31 | .42 | .41 | .75 |
| 35. Male PR | -.04 | -.04 | .01 | .01 | -.08 | .01 | .10 | -.10 | .09 | .06 | .06 | -.01 | .03 | -.02 | .05 | -.01 |
| 36. Fem. PR | -.13 | -.22 | >.01 | -.10 | -.08 | -.10 | .04 | .10 | >.01 | .03 | -.08 | -.03 | -.06 | -.03 | .05 | .04 |
| 37. Male PS | >.01 | .05 | -.07 | -.06 | -.17 | -.06 | .11 | .02 | .32 | .16 | .35 | .23 | .38 | .28 | .40 | .28 |
| 38. Fem. PS | -.01 | .02 | -.05 | -.07 | -.06 | -.11 | -.04 | .05 | .23 | .19 | .18 | .15 | .28 | .33 | .27 | .44 |
| 39. Male PE | -.02 | .03 | -.07 | -.08 | -.17 | -.06 | .15 | .06 | .31 | .15 | .33 | .20 | .37 | .25 | .41 | .27 |
| 40. Fem. PE | .01 | -.01 | -.04 | -.06 | -.04 | -.13 | -.03 | .06 | .19 | .18 | .17 | .12 | .25 | .32 | .24 | .41 |
| 41. Male PP | -.03 | .01 | -.10 | -.12 | -.18 | -.12 | .13 | .02 | .35 | .21 | .30 | .22 | .42 | .32 | .41 | .33 |
| 42. Fem. PP | -.04 | -.01 | -.03 | -.03 | -.07 | -.09 | -.05 | .02 | .23 | .19 | .18 | .13 | .26 | .30 | .28 | .43 |
| 43. Male. RS | .03 | .01 | -.11 | -.09 | -.14 | -.09 | .17 | .04 | .36 | .16 | .38 | .21 | .45 | .28 | .49 | .27 |
| 44. Fem. RS | -.03 | .09 | -.09 | -.10 | -.07 | -.07 | -.01 | .02 | .24 | .23 | .21 | .20 | .30 | .35 | .26 | .55 |
| 45. Male. RE | .02 | -.01 | -.10 | -.10 | -.13 | -.11 | .18 | .07 | .35 | .18 | .35 | .20 | .42 | .28 | .48 | .27 |
| 46. Fem. RE | -.03 | .06 | -.10 | -.10 | -.06 | -.05 | -.01 | .04 | .22 | .22 | .21 | .19 | .27 | .34 | .23 | .41 |
| 47. Male RP | -.01 | -.02 | -.12 | -.12 | -.15 | -.11 | .16 | .02 | .38 | .18 | .34 | .18 | .46 | .27 | .50 | .28 |
| 48. Fem. RP | -.03 | .05 | -.05 | -.09 | -.06 | -.10 | >.01 | .01 | .24 | .23 | .18 | .16 | .30 | .33 | .26 | .56 |

*Note.* R = Responsiveness, PR = Problem Resolution, PS = Provided Support, PE = Provided Emotional Support, PP = Provided Practical Support, RS = Received Support, RE = Received Emotional Support, RP = Received Practical Support

Table 1.2.6

*Correlations Among Variables, Continued*

| Measure | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 33. Male R | - | | | | | | | | | | | | | | | |
| 34. Female R | .34 | - | | | | | | | | | | | | | | |
| 35. Male PR | .04 | >.01 | - | | | | | | | | | | | | | |
| 36. Fem. PR | >.01 | .04 | .15 | - | | | | | | | | | | | | |
| 37. Male PS | .50 | .25 | .06 | -.04 | - | | | | | | | | | | | |
| 38. Fem. PS | .19 | .52 | -.05 | -.05 | .32 | - | | | | | | | | | | |
| 39. Male PE | .57 | .24 | .07 | -.07 | .83 | .30 | - | | | | | | | | | |
| 40. Fem. PE | .16 | .46 | -.03 | -.02 | .29 | .83 | .29 | - | | | | | | | | |
| 41. Male PP | .51 | .29 | .06 | -.01 | .77 | .30 | .59 | .26 | - | | | | | | | |
| 42. Fem. PP | .22 | .51 | >.01 | -.01 | .28 | .74 | .28 | .56 | .30 | - | | | | | | |
| 43. Male. RS | .47 | .29 | .06 | -.06 | .65 | .41 | .62 | .38 | .56 | .34 | - | | | | | |
| 44. Fem. RS | .23 | .51 | -.04 | -.03 | .35 | .71 | .33 | .61 | .31 | .58 | .37 | - | | | | |
| 45. Male. RE | .45 | .29 | .06 | -.05 | .60 | .38 | .67 | .38 | .52 | .33 | .84 | .34 | - | | | |
| 46. Fem. RE | .24 | .45 | -.02 | -.03 | .35 | .62 | .37 | .67 | .29 | .51 | .36 | .83 | .34 | - | | |
| 47. Male RP | .45 | .32 | .10 | >.01 | .55 | .34 | .52 | .31 | .64 | .36 | .79 | .31 | .63 | .30 | - | |
| 48. Fem. RP | .26 | .48 | >.01 | >.01 | .28 | .60 | .27 | .50 | .35 | .70 | .31 | .75 | .29 | .58 | .32 | - |

*Note.* R = Responsiveness, PR = Problem Resolution, PS = Provided Support, PE = Provided Emotional Support, PP = Provided Practical Support, RS = Received Support, RE = Received Emotional Support, RP = Received Practical Support

Table 2.1.1

*Fixed Effects Estimates for Daily Changes in Depression*

| | Gender of Support Recipient | | | |
| | Male | | Female | |
| Predictor | γ | SE | γ | SE |
|---|---|---|---|---|
| Intercept | 1.600*** | .374 | 2.681*** | .266 |
| Bolger Control Variables | | | | |
| Day | - 0.013** | .004 | - 0.007 | .004 |
| Weekend | - 0.023 | .034 | - 0.010 | .035 |
| Stressful Situation | 0.034 | .041 | - 0.068 | .039 |
| Current Depression | 0.038 | .051 | 0.021 | .051 |
| Personality & Relationship Variables | | | | |
| Negative Affectivity | 0.018* | .009 | 0.046*** | .008 |
| Relationship Satisfaction | - 0.010*** | .003 | - 0.005 | .003 |
| Partner Negative Affectivity | 0.016* | .007 | - 0.009 | .009 |
| Partner Relationship Satisfaction | 0.004 | .003 | 0.001 | .003 |
| Support Receipt | - 0.118* | .030 | <0.001 | .057 |
| Support Provision | 0.077 | .049 | 0.022 | .057 |
| Perceived Responsiveness | 0.012 | .034 | 0.024 | .040 |
| Support Receipt x Provision | 0.090 | .107 | - 0.096 | .127 |

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

Table 2.1.2

*Fixed Effects Estimates for Daily Changes in Self-Esteem*

| | Gender of Support Recipient | | | |
| --- | --- | --- | --- | --- |
| | Male | | Female | |
| Predictor | γ | SE | γ | SE |
| Intercept | 2.563*** | .241 | 2.681*** | .266 |
| | | | | |
| Bolger Control Variables | | | | |
| Day | - 0.004 | .002 | <0.001 | .002 |
| Weekend | 0.018 | .021 | - 0.009 | .021 |
| Stressful Situation | - 0.031 | .024 | - 0.047* | .021 |
| Current Self-Esteem | 0.079* | .037 | 0.193*** | .042 |
| | | | | |
| Personality & Relationship Variables | | | | |
| Negative Affectivity | - 0.018*** | .005 | - 0.014** | .005 |
| Relationship Satisfaction | 0.003* | .001 | 0.001 | .002 |
| Partner Negative Affectivity | - 0.005 | .004 | - 0.011* | .005 |
| Partner Relationship Satisfaction | -0.001 | .001 | - 0.001 | .002 |
| | | | | |
| Support Receipt | 0.117*** | .030 | - 0.015 | .003 |
| Support Provision | - 0.072* | .030 | 0.017 | .038 |
| Perceived Responsiveness | 0.015 | .021 | - 0.022 | .023 |
| Support Receipt x Provision | - 0.043 | .065 | 0.042 | .076 |

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

Table 2.2.1

*Fixed Effects Estimates for Daily Changes in Relationship Satisfaction*

|  | Gender of Support Recipient | | | |
| --- | --- | --- | --- | --- |
|  | Male | | Female | |
| Predictor | $\gamma$ | SE | $\gamma$ | SE |
| Intercept | 0.844 | .792 | 1.673 | .968 |
| Bolger Control Variables | | | | |
| Day | 0.018* | .009 | 0.024** | .009 |
| Weekend | 0.117 | .077 | 0.009 | .075 |
| Stressful Situation | - 0.043 | .087 | 0.077 | .079 |
| Current Relationship Satisfaction | 0.206*** | .038 | 0.199*** | .038 |
| Personality Variables | | | | |
| Negative Affectivity | 0.031 | .016 | 0.012 | .019 |
| Attachment Anxiety | - 0.002 | .003 | - 0.003 | .004 |
| Attachment Avoidance | - 0.006 | .005 | 0.002 | .004 |
| Partner Negative Affectivity | - 0.003 | .016 | 0.022 | .019 |
| Partner Attachment Anxiety | - 0.004 | .004 | - 0.002 | .004 |
| Partner Attachment Avoidance | -0.006 | .003 | - 0.008 | .006 |
| Relationship Variables | | | | |
| Initial Relationship Satisfaction | 0.026*** | .006 | 0.019** | .006 |
| Relationship Conflict | - 0.034 | .048 | - 0.063 | .052 |
| Partner Initial Relationship Satisfaction | 0.002 | .005 | 0.002 | .006 |
| Support Receipt | - 0.201 | .111 | - 0.223 | .119 |
| Support Provision | - 0.233* | .114 | 0.052 | .111 |
| Perceived Responsiveness | 0.060 | .080 | - 0.056 | .090 |
| Partner Responsiveness | 0.207* | .087 | 0.180* | .083 |

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

Table 2.2.2

*Fixed Effects Estimates for Daily Changes in Perceived Mattering*

| | Gender of Support Recipient | | | |
| --- | --- | --- | --- | --- |
| | Male | | Female | |
| Predictor | γ | SE | γ | SE |
| Intercept | 1.239 | .631 | 1.302* | .645 |
| **Bolger Control Variables** | | | | |
| Day | 0.004 | .005 | 0.007 | .005 |
| Weekend | 0.059 | .040 | 0.026 | .039 |
| Stressful Situation | 0.033 | .046 | 0.014 | .041 |
| Current Perceived Mattering | 0.102** | .037 | 0.173*** | .036 |
| **Personality Variables** | | | | |
| Negative Affectivity | 0.037** | .012 | 0.011 | .011 |
| Attachment Anxiety | <0.001 | .003 | -0.002 | .003 |
| Attachment Avoidance | -0.006 | .004 | -0.006** | .002 |
| Partner Negative Affectivity | <-0.001 | .012 | 0.024* | .011 |
| Partner Attachment Anxiety | -0.001 | .003 | 0.002 | .002 |
| Partner Attachment Avoid. | -0.007** | .003 | -0.004 | .003 |
| **Relationship Variables** | | | | |
| Initial Relationship Satisfaction | 0.009 | .005 | 0.010** | .004 |
| Initial Perceived Mattering | 0.021** | .008 | 0.016* | .006 |
| Relationship Conflict | -0.021 | .025 | -0.019 | .026 |
| Partner Initial Relationship Satisfaction | 0.004 | .004 | 0.002 | .004 |
| Support Receipt | 0.075 | .057 | -0.095 | .060 |
| Support Provision | -0.064 | .060 | 0.083 | .057 |
| Perceived Responsiveness | 0.035 | .042 | -0.027 | .047 |
| Partner Responsiveness | 0.017 | .046 | 0.018 | .043 |

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

Table 2.2.3

*Fixed Effects Estimates for Daily Changes in Intimacy*

| | Gender of Support Recipient | | | |
| | Male | | Female | |
| Predictor | $\gamma$ | SE | $\gamma$ | SE |
|---|---|---|---|---|
| Intercept | 0.357 | .529 | - 0.308 | .534 |
| | | | | |
| Bolger Control Variables | | | | |
| Day | - 0.005 | .006 | <0.010 | .006 |
| Weekend | 0.116* | .050 | 0.130** | .049 |
| Stressful Situation | - 0.053 | .056 | 0.029 | .051 |
| Current Intimacy | 0.133*** | .038 | 0.201*** | .038 |
| | | | | |
| Personality Variables | | | | |
| Negative Affectivity | 0.018 | .010 | - 0.019 | .010 |
| Attachment Anxiety | - 0.002 | .002 | <- 0.001 | .002 |
| Attachment Avoidance | - 0.003 | .004 | 0.003 | .002 |
| Partner Negative Affectivity | 0.014 | .010 | 0.009 | .010 |
| Partner Attachment Anxiety | 0.002 | .003 | 0.001 | .002 |
| Partner Attachment Avoid. | <-0.001 | .002 | 0.002 | .003 |
| | | | | |
| Relationship Variables | | | | |
| Initial Relationship Satisfaction | 0.014*** | .004 | 0.003 | .004 |
| Initial Intimacy | 0.002 | .003 | 0.009* | .004 |
| Relationship Conflict | - 0.034 | .030 | - 0.032 | .032 |
| Partner Initial Relationship Satisfaction | 0.003 | .003 | 0.006 | .003 |
| | | | | |
| Support Receipt | - 0.029 | .071 | - 0.220** | .076 |
| Support Provision | - 0.082 | .074 | - 0.115 | .071 |
| Perceived Responsiveness | 0.031 | .052 | 0.070 | .057 |
| Partner Responsiveness | 0.050 | .056 | 0.040 | .052 |

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

Table 2.2.4

*Fixed Effects Estimates for Daily Changes in Perceived Responsiveness*

| | Gender of Support Recipient | | | |
| --- | --- | --- | --- | --- |
| | Male | | Female | |
| Predictor | $\gamma$ | SE | $\gamma$ | SE |
| Intercept | 2.826*** | .216 | 2.471** | .312 |
| Bolger Control Variables | | | | |
| Day | 0.002 | .004 | 0.003 | .004 |
| Weekend | 0.008 | .037 | 0.072* | .035 |
| Stressful Situation | - 0.007 | .042 | 0.077* | .037 |
| Current Perceived Resp. | 0.153*** | .038 | 0.125** | .040 |
| Personality Variables | | | | |
| Attachment Anxiety | - 0.002 | .002 | < 0.001 | .002 |
| Attachment Avoidance | - 0.010*** | .002 | - 0.004* | .002 |
| Partner Responsiveness | 0.044 | .043 | 0.050 | .034 |
| Support Variables | | | | |
| Received Support | - 0.044 | .053 | - 0.078 | .156 |
| Provided Support | - 0.085 | .055 | - 0.052 | .315 |

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

Table 2.3.1

*Fixed Effects Estimates for Received Overall Support (Controlling for Previous Day Received Support)*

| Predictor | Gender of Support Recipient | | | |
| | Male | | Female | |
| | $\gamma$ | SE | $\gamma$ | SE |
| --- | --- | --- | --- | --- |
| Intercept | 0.636*** | .106 | 0.619*** | .098 |
| | | | | |
| Bolger Control Variables | | | | |
| Day | 0.007* | .003 | 0.003 | .003 |
| Weekend | 0.022 | .027 | 0.012 | .026 |
| Stressful Situation | 0.051 | .031 | 0.037 | .028 |
| Support Receipt | 0.098** | .032 | 0.097** | .033 |
| | | | | |
| Personality Variables | | | | |
| Attachment Anxiety | <-0.001 | .001 | 0.001 | .001 |
| Attachment Avoidance | - 0.004** | .001 | - 0.003** | .001 |
| | | | | |
| Support Provision | 0.286*** | .030 | 0.228*** | .029 |

$* \; p < .05 \quad ** \; p < .01 \quad *** \; p < .001$

Table 2.3.2

*Fixed Effects Estimates for Received Practical Support (Controlling for Previous Day Received Practical Support)*

| | Gender of Support Recipient | | | |
| | Male | | Female | |
| Predictor | $\gamma$ | SE | $\gamma$ | SE |
| --- | --- | --- | --- | --- |
| Intercept | 0.616*** | .122 | 0.433*** | .115 |
| Bolger Control Variables | | | | |
| Day | 0.006 | .004 | 0.002 | .004 |
| Weekend | -0.014 | .030 | 0.012 | .030 |
| Stressful Situation | 0.055 | .035 | 0.021 | .031 |
| Practical Support Receipt | 0.082* | .033 | 0.108** | .034 |
| Personality Variables | | | | |
| Attachment Anxiety | <-0.001 | .002 | 0.001 | .001 |
| Attachment Avoidance | - 0.004* | .002 | - 0.002 | .001 |
| Practical Support Provision | 0.316*** | .033 | 0.269*** | .034 |

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

Table 2.3.3

*Fixed Effects Estimates for Received Emotional Support (Controlling for Previous Day Received Emotional Support)*

| Predictor | Gender of Support Recipient | | | |
| | Male | | Female | |
| | $\gamma$ | SE | $\gamma$ | SE |
| --- | --- | --- | --- | --- |
| Intercept | 0.515*** | .124 | 0.508*** | .110 |
| Bolger Control Variables | | | | |
| Day | 0.006 | .004 | 0.001 | .003 |
| Weekend | 0.033 | .029 | 0.159 | .030 |
| Stressful Situation | 0.070* | .035 | 0.009 | .031 |
| Emotional Support Receipt | 0.072* | .033 | 0.091** | .034 |
| Personality Variables | | | | |
| Attachment Anxiety | <-0.001 | .002 | 0.001 | .001 |
| Attachment Avoidance | - 0.003 | .002 | - 0.003** | .001 |
| Emotional Support Provision | 0.340*** | .034 | 0.296*** | .034 |

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

Table 2.4.1

*Fixed Effects Estimates for Daily Changes in Progress on Stressor Based Upon All Support*

| | Gender of Support Recipient | | | |
| --- | --- | --- | --- | --- |
| | Male | | Female | |
| Predictor | γ | SE | γ | SE |
| Intercept | 55.129*** | 11.841 | 22.863*** | 4.980 |
| Control Variables | | | | |
| Day | 1.398*** | 0.394 | 0.658*** | 0.139 |
| Weekend | -4.271 | 3.335 | - 1.711 | 1.073 |
| Stressful Situation | 5.548 | 3.369 | 1.715 | 1.130 |
| Current Progress | 0.066 | 0.035 | 0.616*** | 0.025 |
| Personality Variables | | | | |
| Attachment Anxiety | - 0.360* | 0.139 | - 0.048 | 0.060 |
| Attachment Avoidance | 0.189 | 0.157 | 0.055 | 0.056 |
| Support Variables | | | | |
| Support Receipt | 7.694 | 4.250 | - 1.710 | 1.457 |
| Support Provision | - 3.758 | 4.414 | 0.123 | 1.444 |

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

Table 2.4.2

*Fixed Effects Estimates for Daily Changes in Progress on Stressor Based Upon Practical Support*

| | Gender of Support Recipient | | | |
| | Male | | Female | |
| Predictor | $\gamma$ | SE | $\gamma$ | SE |
|---|---|---|---|---|
| Intercept | 53.545*** | 11.323 | 22.300*** | 4.842 |
| Control Variables | | | | |
| Day | 1.384*** | 0.393 | 0.661*** | 0.140 |
| Weekend | - 4.228 | 3.329 | - 1.695 | 1.075 |
| Stressful Situation | 5.866 | 3.657 | 2.071 | 1.135 |
| Current Progress | 0.067 | 0.035 | 0.620*** | 0.025 |
| Personality Variables | | | | |
| Attachment Anxiety | - 0.352* | 0.137 | - 0.055 | 0.060 |
| Attachment Avoidance | 0.192 | 0.153 | 0.061 | 0.055 |
| Support Variables | | | | |
| Practical Support Receipt | 8.894* | 3.723 | - 1.291 | 1.289 |
| Practical Support Provision | - 3.099 | 3.717 | - 0.007 | 1.280 |

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

Table 2.4.3

*Fixed Effects Estimates for Daily Changes in Progress on Stressor Based Upon Emotional Support*

| | Gender of Support Recipient | | | |
| --- | --- | --- | --- | --- |
| | Male | | Female | |
| Predictor | $\gamma$ | SE | $\gamma$ | SE |
| Intercept | 56.757*** | 11.658 | 23.207*** | 4.964 |
| | | | | |
| Control Variables | | | | |
| Day | 1.410*** | 0.402 | 0.669*** | 0.139 |
| Weekend | - 4.532 | 3.408 | - 1.717 | 1.077 |
| Stressful Situation | 6.215 | 3.735 | 1.627 | 1.134 |
| Current Progress | 0.069 | 0.036 | 0.613*** | 0.025 |
| | | | | |
| Personality Variables | | | | |
| Attachment Anxiety | - 0.373** | 0.140 | - 0.048 | 0.060 |
| Attachment Avoidance | 0.178 | 0.158 | 0.054 | 0.056 |
| | | | | |
| Support Variables | | | | |
| Emotional Support Receipt | 4.815 | 3.980 | - 2.104 | 1.300 |
| Emotional Support Provision | - 1.646 | 4.003 | 0.179 | 1.443 |

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

Table 2.5.1

*Fixed Main Effects Estimates of Impacts of Relationship Variables upon Effects of Support on Daily Changes in Depression*

| Predictor | Male | | Female | |
|---|---|---|---|---|
| | γ | SE | γ | SE |
| Intercept | 1.637*** | .342 | 1.029* | .416 |
| | | | | |
| Bolger Control Variables | | | | |
| Day | - 0.012** | .004 | - 0.008 | .004 |
| Weekend | - 0.023 | .033 | 0.010 | .035 |
| Stressful Situation | 0.047 | .041 | 0.064 | .039 |
| Current Depression | 0.045 | .052 | 0.007 | .053 |
| | | | | |
| Personality Variables | | | | |
| Negative Affectivity | 0.018* | .008 | 0.046*** | .008 |
| Partner Negative Affectivity | 0.019** | .007 | 0.009 | .009 |
| | | | | |
| Relationship Variables | | | | |
| Initial Satisfaction | - 0.009** | .003 | - 0.005 | .003 |
| Partner Initial Satisfaction | 0.003 | .003 | 0.001 | .003 |
| Current Satisfaction | 0.016 | .018 | 0.003 | .019 |
| Perceived Mattering | - 0.086** | .033 | 0.027 | .035 |
| Intimacy | 0.013 | .029 | - 0.080** | .030 |
| Perceived Responsiveness | 0.018 | .036 | 0.051 | .042 |
| | | | | |
| Support Variables | | | | |
| Support Receipt | - 0.101** | .049 | 0.023 | .057 |
| Support Provision | 0.079 | .047 | 0.047 | .058 |

The table header "Gender of Support Recipient" spans the Male and Female columns.

$* \ p < .05 \quad ** \ p < .01 \quad *** \ p < .001$

Table 2.5.2

*Fixed Full Effects Estimates of Impacts of Relationship Variables upon Effects of Support on Daily Changes in Depression*

| Predictor | Male | | Female | |
|---|---|---|---|---|
| | γ | SE | γ | SE |
| Intercept | 1.590*** | .349 | 0.976* | .420 |
| | | | | |
| Bolger Control Variables | | | | |
| Day | - 0.012** | .004 | - 0.008 | .004 |
| Weekend | - 0.027 | .033 | 0.012 | .035 |
| Stressful Situation | 0.049 | .040 | 0.061 | .039 |
| Current Depression | 0.055 | .052 | 0.004 | .053 |
| | | | | |
| Personality Variables | | | | |
| Negative Affectivity | 0.018* | .008 | 0.046*** | .008 |
| Partner Negative Affectivity | 0.020** | .007 | 0.009 | .009 |
| | | | | |
| Relationship Variables | | | | |
| Initial Satisfaction | - 0.009*** | .003 | - 0.005 | .003 |
| Partner Initial Satisfaction | 0.004 | .003 | 0.001 | .003 |
| Current Satisfaction | 0.025 | .019 | - 0.003 | .020 |
| Perceived Mattering | - 0.078* | .033 | 0.033 | .036 |
| Intimacy | - 0.001 | .029 | - 0.083** | .031 |
| Perceived Responsiveness | 0.017 | .035 | 0.053 | .042 |
| | | | | |
| Support Variables | | | | |
| Support Receipt | - 0.110* | .050 | 0.022 | .057 |
| Support Provision | - 0.253 | .281 | - 0.024 | .381 |
| | | | | |
| Interaction Terms | | | | |
| Support Provision x Satisfaction | 0.081 | .044 | 0.043 | .052 |
| Support Provision x Mattering | 0.052 | .066 | 0.042 | .079 |
| Support Provision x Intimacy | -0.230** | .072 | - 0.029 | .081 |
| Support Provision x Responsiveness | 0.137 | .094 | - 0.015 | .110 |

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

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