Validity and Utility of a Multidimensional Model of Received Support in Intimate Relationships

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The authors of the present study statistically address the largely conceptual debate about the multidimensional nature of received support in intimate relationships. The Support in Intimate Relationships Rating Scale (SIRRS) was factor analyzed in 3 samples of dating and married couples. A novel, 4-factor structure of support types was generated that constituted esteem/emotional, physical comfort, informational, and tangible support types. This structure was reliable and valid in dating and marital relationships, across men and women, and across time. Each support type also demonstrated incremental validity for explaining marital adjustment, depression symptoms, and anxiety symptoms longitudinally. This study is among the first to generate and cross-validate a factor analytically derived set of support types for received support and the first to do so regarding partner support specifically. This is also the first study to replicate a distinct set of support types across different types of intimate relationships, across both sexes, and over time within relationships. Implications for enhancing functional theories of support and for augmenting the construct validity of a multidimensional model of received support are discussed.

Keywords: couples, factor analyses, measurement, Support in Intimate Relationships Rating Scale (SIRRS), social support

In recent years, a large, consistent body of evidence has emerged demonstrating the importance of social support provided by an intimate partner for physical and psychological health (for reviews, see Burman & Margolin, 1992; Kiecolt-Glaser & Newton, 2001) and for relationship satisfaction (e.g., Kurdek, 2005; Pasch & Bradbury, 1998). Additionally, there has been a call for the development of intimate partner support measures that are (a) embedded in established, empirically supported, conceptual frameworks and (b) have strong psychometric properties (e.g., Bradbury, Fincham, & Beach, 2000; Cutrona, Russell, & Gardner, 2005; Kiecolt-Glaser & Newton, 2001). The purpose of the present study was to identify a factor analytically derived set of support types in a measure of received partner support. Specifically, we sought to generate a set of support types that generalized across dating and married couples, across men and women, and across time within a given relationship. We also aimed to demonstrate the incremental validity of each support type for explaining key individual (depression and anxiety symptoms) and dyadic outcomes (marital adjustment) over time.

Within the literature on the implications of support for individual and dyadic well-being, received support has become a major focus. Received support refers to the frequency of support behaviors perceived by a support recipient during a support transaction (Pierce, Sarason, Sarason, & Henderson, 1996). Many researchers argue that, for support to benefit a support recipient, behaviors must not only be enacted but also be perceived (e.g., Pierce et al., 1996; Schwarzer & Knoll, 2007). That is, members of one’s support network may enact supportive behaviors, but the intended support recipient may not necessarily notice the behaviors or recognize them as supportive (Pierce et al., 1996). Indeed, there is only moderate agreement between reports of enacted and received support (for a review, see Sarason, Sarason, & Pierce, 1990). Moreover, received sup-
port is an important predictor of both individual outcomes (e.g., Finch et al., 1997) and dyadic outcomes (e.g., Xu & Burleson, 2004). Thus, we chose to focus on examining the structure of received support in the present study.

A Consideration of Types of Support

The notion that received support (and social support in general) is a multidimensional phenomenon—that it comprises distinct types of support—has been widely accepted in the broader support literature. A multidimensional conceptualization has served as the foundation for the development of multiple theories designed to explicate the role of support processes in individual and dyadic well-being (e.g., Cutrona, Shaffer, Wesner, & Gardner, 2007). In an attempt to integrate existing models of support types, Cutrona and Russell (1990) reviewed these multidimensional models and proposed five theoretically based support dimensions or types: emotional support (providing reassurance, love, and affection), informational support (providing information and advice), esteem support (validation or showing confidence in the partner’s abilities), instrumental or tangible support (providing direct or indirect assistance in solving the problem), and network support (encouraging the partner to make use of social resources, e.g., family and friends). Their framework served as the conceptual foundation for the development of measures of received support (e.g., Barrera, Sandler, & Ramsey, 1981; Dehle, Larsen, & Landers, 2001; Xu & Burelson, 2004), and factor analyses have indeed generated several of these types of received support. Specifically, we identified six published factor analytic studies examining the structure of received support, all of which analyzed the same measure—the Inventory of Socially Supportive Behaviors (ISSB; Barrera et al., 1981). This research yielded evidence of three to five support types, depending on the study. Although there were differences across studies, they generally agreed on three of the types: emotional/esteem or nondirective support, tangible support, and informational support or directive guidance (Barrera & Ainaly, 1983; Finch et al., 1997; Krause & Markides, 1990; Pretorius & Diedricks, 1993; Stokes & Wilson, 1984; Walkey, Siegert, Taylor, & McCormick, 1987).

Although there is some agreement about the structure of received support, previous studies have notable methodological limitations. First, with one exception (Krause & Markides, 1990, who sampled retired adults aged 65 and older), previous factor analyses were conducted on data provided by undergraduates. Although convenience samples such as college students are particularly useful in the exploratory phase of scale construction (Clark & Watson, 1995), such samples may have limited applicability to different populations (e.g., married couples, adults). Second, most of these studies relied exclusively on exploratory factor analytic (EFA) techniques and did not cross-validate their results. Moreover, even when cross-validation analyses were conducted, they were conducted with samples of undergraduates (Finch et al., 1997; Walkey et al., 1987). EFAs are useful for preliminary investigations; however, cross-validation is necessary to demonstrate that the structures generated through EFAs are generalizable (Clark & Watson, 1995). Confirmatory factor analyses (CFA) are the preferred approach for cross-validation, because they allow researchers to test the adequacy of a previously identified factor structure (a priori hypothesis testing). Third, each of the previous studies examined the structure of received support as operationalized in the ISSB. As is the case with any factor analysis, the resulting factor structure is limited by the measure used. Thus, examining whether a particular structure replicates in a different measure of received support is critical to validating the construct of received support. If a previously identified structure were to replicate in a different measure, we could be more confident that the identified factors represent true underlying dimensions of received support rather than dimensions unique to the ISSB. In summary, we sought to build on previous studies and overcome their methodological limitations by (a) cross-validating the results of EFAs using CFAs, (b) validating our results in a community sample of married couples, and (c) analyzing a different measure of received support.

Support Types in Intimate Relationships

An additional—and, we argue, uniquely important—criticism of existing factor analyses of received support measures is that they examined a measure designed to reflect support received from any individual in a person’s social network (e.g., friends, family, co-workers). Although researching support received from an individual’s network is important, examining support received in specific relationships is also necessary, because the effects of support differ across individuals’ specific relationships (Lakey & Scoboria, 2005). Additionally, a measure assessing support from multiple sources necessarily aggregates across those different sources. Such aggregation may confound support types (e.g., emotional vs. tangible support) with the source of the support (e.g., whether the support is provided by an intimate partner vs. a parent), limiting our ability to explain how different types of support function in specific types of relationships (Sarason et al., 1990). For these reasons, we chose to examine a measure designed to assess support received from a particular source.

More specifically, we chose to examine support received from one’s intimate partner. Intimate partners are a particularly important source of social support (see Acitelli, 1996; Kiecolt-Glaser & Newton; Revenson, 1994). They are the most frequently preferred interpersonal sources of security, comfort, and support (Hazan & Shaver, 1994). Moreover, support provided outside of a marriage does not adequately compensate for a lack of spousal support (e.g., Coyne & Delongs, 1986). Therefore, given the unique importance of support received from romantic partners, we chose to examine the structure of support within this particular context. Of note, the conceptual framework proposed for support from intimate relationships (e.g., Dehle et al., 2001) is based on the framework proposed for received support from an individual’s support network (Cutrona & Russell, 1990). However, the question of whether the structure of support...
received from partners is the same as that received from individuals’ social networks has yet to be addressed empirically. Furthermore, because of the methodological weaknesses of, and limited agreement across, previous studies of the structure of received support, further study is clearly necessary.

Two self-report measures have been developed that may be used to assess received support in intimate relationships: the Support in Intimate Relationships Rating Scale (SIRRS; Dehle et al., 2001) and the Desired and Experienced Support Scale (DESS; Xu & Burelson, 2001, 2004). Both measures include items representing the theoretically based dimensions of support identified by Cutrona and Russell. However, neither of these measures have been subjected to factor analyses to date; therefore, it is unclear whether the types of received support measured by these scales actually represent statistically distinct support dimensions. In the present study, we analyzed the SIRRS rather than the DESS for three reasons. First, most of the literature and theories relevant to social support have focused on support occurring in times of stress. The SIRRS assesses support received specifically within the context of stressful experiences, whereas the DESS assesses support received when support is needed. Also, the specificity of the SIRRS to stressful situations may reduce overlap with related but conceptually distinct constructs (e.g., emotional intimacy). Second, several items of the DESS combine multiple behaviors into single items (“expressing understanding of a situation that is bothering you or disclosing a similar situation that he/she experienced before”), so it is unclear to which part of the question the participant is responding. Third, the larger item pool of the SIRRS renders it more useful for EFA (Clark & Watson, 1995).

Overview of the Present Study

Despite the general agreement that social support is a multidimensional phenomenon, validating a construct is an ongoing scientific pursuit rather than one for which there is a conclusive answer. The purpose of the present study was to examine the dimensionality of received intimate partner support by means of factor analyses of the SIRRS. In addition, factor analyses can facilitate the identification of items best representing each support type, allowing for scale enhancement. Thus, once we identified a set of relevant support types, we selected the optimal item sets and cross-validated them in multiple samples. We also sought to extend the utility of the SIRRS. The SIRRS was designed to capture perceptions of support rather than objective indices of support (Dehle et al., 2001), and we wanted to capitalize on this strength further by modifying the measure. Rather than collecting daily measures of support frequency (objective counts of daily support as proposed in the original SIRRS), we collected perceptions of support received over the previous month. We made this modification to better operationalize the construct that we believed was critical for researchers of close relationships to pursue—the role of global perceptions of support received from one’s partner.

Three aims guided the present study. The first aim was to statistically address the largely conceptual debate regarding the most valid way to distinguish among support types provided by intimate partners. In accord with a multidimensional model of social support (e.g., Cutrona & Russell, 1990), we expected our factor analyses of the SIRRS to demonstrate that a multidimensional structure would better fit our data compared with a unidimensional structure. With regard to the specific structure that we expected to find, we based our hypotheses on the conceptual work of Cutrona and Russell and on previous research on the structure of received support. Although Cutrona and Russell proposed five dimensions initially, one of those dimensions—network support—demonstrated relatively poor reliability (Cutrona et al., 2005). Therefore, we did not expect a reliable network support factor to emerge. Additionally, although previous factor analyses did not find the same structures, they generally yielded three of Cutrona and Russell’s five support types—emotional and/or esteem support, tangible support, and informational support—suggesting a degree of structural stability across samples and research groups. Therefore, we tentatively hypothesized that we would also find these three types of received support in intimate relationships. Given the degree of disagreement regarding the remaining factors, we did not make a priori hypotheses regarding those factors.

Our second aim was to examine the generalizability of our factor analytically derived support types. This aim was primarily methodological in nature and in service of our larger goals to expand the utility and validity of the SIRRS. First, we investigated whether the structure of support types would demonstrate factorial validity across dating and marital relationships. Our review of the partner support literature earlier focused primarily on support between spouses. However, as the proportion of couples who cohabit and/or date for many years before marriage increases, greater attention is being given to the study of premarital relationships (e.g., Brown & Booth, 1996; Stanley, Rhoades, & Markman, 2006). Additionally, support patterns that develop early in relationships (e.g., during courtship) are important for longitudinal individual and dyadic outcomes (e.g., Cutrona et al. 2005; Cutrona et al., 2007; Ruvo & Brennan, 1997). However, researchers have yet to examine whether the structure of received support is similar across dating and marital relationships. We examined this question in the present study and hypothesized that the structure would be similar across these different types of intimate relationships. Second, we examined whether our support types would fit the data well for men and women. Structural similarity across sexes has important implications for the utility of a measure and the inferences that can be drawn from studies using a given measure. Structural differences across sexes may suggest measurement problems or may reflect basic social differences that influence the meaning of the construct across men and women (Vandenberg, & Lance, 2000). To date, measurement equivalence across sexes has not been examined with regard to received support types, although we expected the structure to be similar across men and women. Third, we examined whether our empirically derived set of support types would demonstrate
measurement equivalence across time—that the structure would be the same across multiple assessments in specific relationships. It is possible that, as relationships mature, the factor structure of received partner support, or the degree of measurement error, may change, preventing us from clarifying whether changes in received partner support over time result from measurement error versus true longitudinal change. We hypothesized that the factor structure of received support would demonstrate measurement equivalence in a sample of newlywed couples assessed five times over 5 years.

Our third aim was to examine the incremental validity of each support type for explaining marital adjustment, depressive symptoms, and anxiety symptoms over time. We argue for the inclusion of support types in theories of individual and dyadic well-being, and, indeed, researchers have begun to examine particular types of support as predictors of individual and relational variables (e.g., Cunningham & Barbee, 2000; Xu & Burleson, 2001). Nevertheless, support types are only useful to the extent that they provide unique explanatory power for individual and dyadic outcomes. Thus, we examined this question and hypothesized that each of the support types identified would explain incremental variability in marital adjustment, depression symptoms, and anxiety symptoms over time, supporting the incremental validity and utility of our factor structure.

Method

Participants and Procedure

Samples 1 & 2: Dating participants. Participants in Samples 1 and 2 were 408 (256 women, 152 men) and 260 (136 women, 124 men) students, respectively, enrolled in introductory psychology courses at a public Midwestern university. To participate, students had to be in exclusive, heterosexual romantic relationships lasting at least 2 months. Relationships ranged from 2 months to 6 years ($M = 1.8$ years, $SD = 1.5$ years). Participants ranged in age from 18 to 26 years ($M = 19$ years, $SD = 1.2$ years), and the majority (90%) were Caucasian. Participants completed the SIRRS and other measures beyond the scope of this study and received credit for partial fulfillment of a course requirement.

Sample 3: Married couples. Newlywed couples were recruited through marriage license records from cities, small towns, and rural areas in the Midwest. Couples were mailed letters explaining the study and inviting them to participate. Interested couples were screened to ensure they met eligibility requirements: Both spouses had to be at least 18 years of age, relatively fluent in English, married less than 6 months, and in their first marriages. Over 350 couples responded, and the first 105 who met criteria and kept their scheduled appointments were included in the sample. One couple’s data were removed because it was revealed that it was not the wife’s first marriage. Data from the husband of another couple were removed because his responses were deemed unusable and unreliable. Two more couples withdrew before the third wave of data collection. Therefore, data analyses were conducted on 101 couples. Couples’ modal annual joint income was between $40,001 and $50,000. Husbands’ and wives’ average ages were 26.2 ($SD = 3.6$) and 25.0 ($SD = 3.8$), respectively. Spouses’ modal education was 14 years. For 15% of our sample, at least one spouse identified himself or herself as a member of an ethnic minority group. None of the demographics significantly correlated with key variables in this study. Questionnaires included in the present study were administered five times: at 3–6 months, 12–15 months, 21–24 months, 30–33 months, and 54–57 months of marriage. (Anxiety data were not collected at 30–33 months.) Couples were paid $25–$100 at each wave of data collection.

Measures

The SIRRS. The SIRRS (Dehle et al., 2001) is a self-report measure designed to assess a wide range of supportive behaviors provided by one’s partner when one is experiencing stresses, hassles, or challenges. The 48 items are behaviorally specific indicators assessed over a discrete time period. The study in which the SIRRS was introduced was a daily diary study (Dehle et al., 2001); respondents reported how many times their partner engaged in each behavior and how many times they would have liked their partner to engage in that behavior each day. Given our aim to clarify global perceptions (as opposed to behavioral counts) of received partner support, we asked participants how often their partner engaged in each behavior over the course of the previous month, using a 5-point Likert-type scale ranging from 0 (never) to 4 (almost always).

Outcome measures. The Marital Adjustment Test (MAT; Locke & Wallace, 1959) is one of the most frequently used measures of marital adjustment. Scores range from 0 to 158, with higher scores indicating better marital adjustment. The MAT demonstrates split-half reliability of .90 and good criterion validity (Locke & Wallace, 1959). The Beck Depression Inventory—2 (Beck, Steer, & Brown, 1996) is a 21-item measure widely used in clinical and community samples. Scores range from 0 to 63, with higher scores indicating more depressive symptoms. The $\alpha$ ranged from 0.78–0.91 across spouses and time. The Beck Anxiety Inventory (Beck & Steer, 1990) is a 21-item questionnaire used in clinical and nonclinical samples. Scores range from 0 to 63, with higher scores indicating greater anxiety. The $\alpha$ ranged from 0.82–0.91 across spouses and time.

Results

Aim 1: Can We Identify a Reliable Set of Support Types in Intimate Relationships?

Testing the one- and five-factor structures. Using M-Plus software (Muthén & Muthén, 2004), we conducted CFAs with weighted least squares mean and variance (WLSMV) adjusted estimation. Degrees of freedom for WLSMV estimations are calculated from the estimated covariance matrix and from a diagonal weight matrix (for more information, see Muthén & Muthén, 2004). We eval-
uated the fit of our CFAs with two indices: the comparative fit index (CFI) and the standardized root mean residual (SRMR). Conventionally, models are judged to be an adequate fit when the CFI is at or above .90 and when the SRMR is below .08 (Browne & Cudeck, 1992; Kline, 1998). In the marital sample (Sample 3), husbands’ and wives’ data were modeled in separate analyses for two reasons. First, data from husbands and wives are nonindependent (Kenny, Kashy, & Cook, 2006). Second, because of the large number of items, models that included both husbands and wives could not run.

First we tested a one-factor structure (representing a unidimensional conceptualization of support) in our dating (Sample 1) and marital (Sample 3) samples. The one-factor model was a poor fit for the data in both the dating sample ($\chi^2[115] = 2,062.95$, $p < .01$; CFI = .43, SRMR = .12) and the marital sample (husbands: $\chi^2[47] = 339.28$, $p < .01$; CFI = .70, SRMR = .14; wives: $\chi^2[55] = 421.08$, $p < .01$; CFI = .63, SRMR = .16). Next, we tested the five-factor structure proposed by Dehle for the SIRRS (personal communication, November 20, 2007). The five-factor model was also a poor fit for the dating sample, $\chi^2(119) = 1,395.15$, $p < .01$; CFI = .63, SRMR = .11; and for husbands, $\chi^2(49) = 212.98$, $p < .01$; CFI = .83, SRMR = .12; and wives, $\chi^2(55) = 258.47$, $p < .01$; CFI = .79, SRMR = .14, in the marital sample.

**Exploratory factor analyses.** Next, we conducted EFAs to determine an adequately fitting and interpretable factor structure for dating individuals (Sample 1). To determine the best factor solution, we estimated a series of principal axis factor analyses with promax rotation using Mplus software (Muthén & Muthén, 2004) and examined each structure for (a) adequate fit for the data demonstrated by a root mean square residual (RMSR) estimate of .08 or lower (Browne & Cudeck, 1992), (b) interpretability of the factors, and (c) an adequate number of items to define a factor (three or more; Comrey, 1988) without high cross-loadings (items loading more than .30 on two or more factors). Six factors had eigenvalues above 1.0; therefore, structures with one through six factors were estimated and examined.

The one- and two-factor structures did not adequately fit the data; RMSRs were above the recommended cutoff of .08. The three-factor structure (RMSR = .08) was rejected because many of the items had high cross-loadings, leaving few items as strong markers for each of the three factors. The four-factor structure (RMSR = .05) had fewer items with high cross-loadings and yielded four clearly interpretable factors: (a) an esteem/emotional support factor, which included most of the items designed to capture esteem support (e.g., “Expressed confidence in my ability to handle a situation”); and some of the items designed to capture emotional support (e.g., “Told me everything would be OK”); (b) a factor we termed physical comfort support because the items comprised physical acts of comforting one’s partner such as hugging or cuddling; (c) an informational support factor, which included items designed to represent sharing knowledge or insight about a problem (e.g., “Shared facts or information with me about a situation I was facing”); and (d) a tangible support factor that had items assessing actual or offered assistance (e.g., “Did something to help me directly (e.g., helped with a problem from work)” with the problem. The five- and six-factor structures were rejected because, in each solution, the final factor had only two strong markers (items with high factor loadings).

**Scale revision based on the four-factor solution.** On the basis of our criteria, we selected the four-factor model. The resulting factors were strongly intercorrelated from .45 to .65 ($p < .01$); this is consistent with the view that the factors represent dimensions of a single higher order construct (received support), yet the factors are also sufficiently distinct from one another to be considered separate types of support. We retained only strong markers of each factor (.40 or higher) without high cross-loadings (less than .30). Seven items failed to load at least .40 on any factor, and 14 items had high cross-loadings; these items were removed. The revised scale had 25 items (see Table 1). Each subscale evidenced excellent internal consistency (as ranged from 0.86 to 0.92).

**Aim 2: How Generalizable Is Our Novel Set of Support Types?**

Replicating across dating and marital relationships. We attempted to cross-validate our four-factor structure in a separate sample of dating individuals (Sample 2) and in our sample of married couples (Sample 3). In the marital sample, because of reduced model complexity (i.e., fewer items and factors), we were able to model husbands’ and wives’ simultaneously. CFAs of our four-factor structure adequately fit the data from dating participants, $\chi^2(61) = 312.75$, $p < .01$, CFI = .93, SRMR = .07; and married couples, $\chi^2(61) = 124.35$, $p < .01$, CFI = .96, SRMR = .07.

Replicating across men and women. To test whether our four-factor structure fit data from men versus women, we conducted a two-group CFA on our dating sample (Sample 2), with men and women constituting separate groups. We did not test structural sex differences with the marital sample (Sample 3), because those data are interdependent. When the two-group model was constrained to have full measurement equivalence, the reduction in model fit (as evidenced by a nested $\chi^2$ test) was nonsignificant, $\chi^2(25) = 36.44$, $p = .07$. This suggests that the model fit both men and women, providing evidence of the generalizability of our support types across sexes.

**Measurement equivalence across time.** Following procedures outlined by Vandenberg and Lance (2000), we tested the longitudinal measurement equivalence of the four-factor structure in our marital sample. (We did not have longitudinal data in Samples 1 & 2.) When the SIRRS subscales were constrained to have full measurement equivalence across five waves of data, the drop in model fit (compared with the unconstrained multiple-group model) was nonsignificant, $\chi^2(200) = 225.50$, $p = .11$, suggesting that the four-factor structure remained reliable across time.
Aim 3: Do the Different Types of Support Demonstrate Incremental Validity?

Preliminary analyses. Across husbands and wives, and over five waves of data, spouses generally experienced high marital adjustment (Ms = 104.58–123.85, SDs = 18.59–25.45), mild levels of depressive symptoms (Ms = 3.17–8.52, SDs = 5.31–8.38), mild levels of anxiety symptoms (Ms = 3.17–6.51, SDs = 5.31–6.38), and relatively high levels of received support. Support types were generally weakly to moderately intercorrelated (rs = .00–.69) and weakly to moderately correlated with outcomes (rs = .00–.42) across time. In summary, variables were generally related but sufficiently distinct from each other and across spouses to warrant analyzing them separately.

Trajectories of support, marital adjustment, depressive symptoms, and anxiety symptoms for husbands and wives were generated with an actor–partner interdependence model (Kenny et al., 2006) and growth curve modeling (Raudenbush & Bryk, 2001) techniques. As recommended by Raudenbush, Brennan, and Barnett (1995), we modeled husbands’ and wives’ data within the same equations (as opposed to nesting spouses within couples). Linear trajectories were estimated from the five data points, with time measured as months since wedding.

All support parameters (intercepts and slopes of the four support types) demonstrated significant between-subject variability; χ²s(100) ranged from 125.06 to 257.64, p < .05. On average, physical comfort support declined linearly over time: For husbands, t(100) = −3.93; for wives, t(100) = −5.17, ps < .01. Esteem/emotional, informational, and tangible support did not demonstrate average, systematic linear change. All parameters for our three outcomes (marital adjustment and depressive and anxiety symptoms) also demonstrated significant between-subject variability; χ²s(100) ranged from 126.63 to 236.35, p < .05, demonstrating that it was appropriate to predict these parameters. Marital adjustment declined linearly for husbands, t(100) = −6.69; and wives, t(100) = −7.00, ps < .01. Depressive symptoms did not demonstrate average, systematic linear change: For husbands, t(100) = 0.43, ns; for wives, t(100) = −4.44, ns. Anxiety symptoms declined linearly for husbands, t(100) = −3.16, p < .01; but not for wives, t(100) = −1.00, ns.

Incremental validity of support types in explaining outcomes over time. We estimated husbands’ and wives’ received partner support types as time-varying predictors of husbands’ and wives’ outcomes. For all analyses, the other two outcomes were entered as covariates. Cross-spouse associations among outcomes (e.g., wives’ depression predicting husbands’ anxiety) were nonsignificant and, therefore, not included in subsequent analyses. The results discussed later represent the unique associations between each

### Table 1

Four-Factor Structure of The SIRRS: EFA With Promax Rotation in a Dating Sample (Sample 1)

<table>
<thead>
<tr>
<th>Factor</th>
<th>Esteem/emotional</th>
<th>Physical comfort</th>
<th>Information</th>
<th>Tangible</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Gave me suggestions about how to handle a situation</td>
<td>.78</td>
<td>.77</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Taught me what to do to solve a problem or deal with a situation</td>
<td>.75</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Helped me think about a situation in a new way</td>
<td>−.20</td>
<td>.74</td>
<td></td>
<td></td>
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<tr>
<td>4. Taught me how to do something</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>5. Shared a personal experience that was similar to my situation</td>
<td>.50</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Shared facts or information with me about a situation I was facing</td>
<td>.84</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Restated what I had told him/her about a situation</td>
<td>.60</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Inferred how I was feeling about a situation</td>
<td>.46</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>9. Hugged me or cuddled with me</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>10. Kissed me</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Held my hand</td>
<td>.89</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Patted or stroked me affectionately</td>
<td>.86</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. Told me everything would be OK</td>
<td>.60</td>
<td></td>
<td></td>
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<tr>
<td>14. Said he/she thought I handled a situation well</td>
<td>.73</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. Expressed confidence in my ability to handle a situation</td>
<td>.83</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>16. Said good things about me</td>
<td>.67</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17. Said it was OK to feel the way I was feeling</td>
<td>.80</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18. Took my side when discussing my situation</td>
<td>.87</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>19. Said he/she would feel the same way in my situation</td>
<td>.83</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20. Said I was not at fault for my situation</td>
<td>.79</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>21. Offered to do something to help me indirectly w/my situation</td>
<td>.59</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22. Offered to do something to help me directly</td>
<td>.22</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23. Offered to help me indirectly (e.g., offered to do my chores)</td>
<td>.68</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24. Offered to help me directly (e.g., did my chores)</td>
<td>.78</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25. Offered to do something with me to help me feel better</td>
<td>.84</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Note. Factor loadings less than .20 have been omitted. Items 1–8 are informational support, 9–12 are physical comfort, 13–20 are esteem/emotional support, and 21–25 are tangible support. Some items include examples on the original The Support in Intimate Relationships Rating Scale (SIRRS); Reprinted with permission from “Social support in marriage,” by C. Dehle, D. Larsen, and J. E. Landers, 2001, *The American Journal of Family Therapy*, 29, pp. 307–324. Copyright 2001 by Taylor & Francis; those examples were retained but not shown here in the interest of saving space. EFA = exploratory factor analysis.
type of support and a given outcome after controlling for (a) initial level of the outcome (intercept), (b) all other types of support, (c) linear changes in the outcome (slope), (d) cross-spouse effects, and (e) the other two outcomes. For ease of presentation, only within-spouse paths and significant findings are discussed.

Husbands’ marital adjustment declined to the extent that esteem/emotional, physical comfort, and informational support also declined over time; ts(100) ranged from 2.13 to 2.47, ps < .01. Wives’ marital adjustment declined to the extent that esteem/emotional, physical comfort, and tangible support also declined; ts(100) ranged from 2.64 to 3.08, ps < .01. For all types of support, the effects were significantly stronger for wives than for husbands; χ²s(1) ranged from 5.28 to 15.22, ps < .05. Husbands’ depressive symptoms increased to the extent that esteem/emotional support decreased over time, t(100) = −2.00, p < .05. Wives’ depressive symptoms increased to the extent that tangible support declined, t(100) = −3.24, p < .01. Husbands’ anxiety increased to the extent that physical comfort, t(100) = 3.35, and tangible support increased, t(100) = 1.98, ps < .05; and as esteem/emotional support declined, t(100) = −2.64. Also, wives’ anxiety increased as tangible support increased, t(100) = 3.11, p < .01.

Discussion

The notion that received support is a multidimensional phenomenon—that it consists of distinct types of support—has been widely accepted in the broader support literature. However, previous attempts to clarify the nature of these specific dimensions across relationships have been hindered by several methodological limitations. Moreover, to our knowledge, there are no published factor analyses examining these dimensions in the uniquely important context of intimate relationships. The present study was one of the first to generate and cross-validate a factor analytically derived set of support types for global perceptions of received support, as well as the first to do so regarding intimate partner support specifically. To our knowledge, this study is also the first to cross-validate a distinct set of support types across dating and married couples, across men and women, and across time within relationships.

Summary and Interpretation of Results

Our first aim was to examine the factor structure of received partner support types as measured by the SIRRS. This structure was best represented by four types of support rather than (a) a single, unidimensional construct or (b) the five types originally proposed (but heretofore not tested) for the SIRRS. The four-factor structure constituted esteem/emotional, physical comfort, informational, and tangible support types. Additionally, the magnitudes of the correlations among the different support types suggested that they also represented a higher order factor of received partner support. Our second aim was to examine the generalizability of these factor analytically derived support types. This structure was valid in dating and married samples, in men and women, and across 5 years (and five waves of data) within a sample of married couples. Our ability to replicate the support types across populations and over time increases our confidence in the validity and reliability of our newly generated structure of support.

The third aim was to demonstrate the potential utility of these support types, as evidenced by the incremental validity of each type to explain marital adjustment and depressive and anxiety symptoms over time. First, each support type was uniquely associated with key outcomes, even after covarying out the other support types, cross-spouse associations, baseline trajectories, and the other outcomes of interest. These results demonstrate the utility of incorporating distinct support types into predictive models of individual and dyadic functioning. Second, as expected, all support types were uniquely associated with better marital adjustment. In contrast, Xu and Burleson (2004) found that only emotional support uniquely predicted marital satisfaction. However, their measure was developed using a rational rather than a factor-analytic approach. Rationally derived subscales often suffer from high multicollinearity, which would likely account for the relative lack of findings in that study. Our third finding was that dimensions of received support were more strongly associated with wives’ marital adjustment than with that of husbands. This sex difference is in line with much of the marital literature demonstrating that wives are the “barometers” of the marriage. Specifically, wives’ reports and behavioral observations of wives’ behavior when interacting with their husbands, are typically more sensitive indicators of marital distress (compared with husbands’ data; for a review, see Floyd & Markman, 1983).

It is interesting that some support types were associated with better individual adjustment (depressive and anxiety symptoms), whereas other support types were associated with poorer individual adjustment. Husbands’ depression and anxiety symptoms were lower to the extent that they received more esteem/emotional support, but husbands’ anxiety was higher when they received more tangible and physical comfort support. For wives who received more tangible support, depressive symptoms were lower but anxiety symptoms were higher over time. Also, many of the support types associated with poorer individual adjustment were also associated with better marital adjustment. Given that we examined covariation among trajectories rather than causal links, one explanation for this pattern of findings is that spouses who experience greater anxiety elicit more support from their partners and that receipt of these types of support from their partner enhances marital adjustment.

Linking Our Findings to Previously Proposed Multidimensional Models of Support

The four-factor structure that we generated and validated in the present study did not replicate any of the structures previously proposed by researchers, regardless of whether they were simply conceptual offerings or were generated by means of factor analyses. However, as expected, we did replicate the three factors that have generally been found in previous factor analyses of received support—emotional

...
and/or esteem support, tangible support, and informational
support (e.g., Barrera & Ainlay, 1983). These three factors
were also three of the five factors originally proposed for the
original SIRRS (Dehle et al., 2001), the conceptual framework
upon which the SIRRS was based (Cutrona & Russell,
1990), and other extant theories of support (e.g., Cohen &
Wills, 1985).

Despite this general agreement regarding three of the
support types, we also found three important differences
between the proposed SIRRS structure and our factor ana-
lytically derived structure. First, across all of our factor
analyses, we found robust evidence for physical comfort
support; items included “kissed me” and “held my hand.”
Physical comfort emerged as a factor separate from emo-
tional support and demonstrated incremental utility over the
other support types. These findings represent an important
shift from the proposed dimensional structure of the SIRRS
(and across other multidimensional models of support)
wherein physical comfort behaviors were subsumed under
the dimension of emotional support.

Second, we found that received emotional support and
esteem support constituted a single factor rather than two
distinct factors, despite the fact that there were ample items
to assess each dimension. To date, some conceptual frame-
works have merged these two types of support (e.g., Cohen
& Wills, 1985) whereas others have distinguished them
(e.g., Cutrona & Russell, 1990). Our analyses suggest that
such a distinction, at least in intimate relationships, is un-
warranted.

Third, consistent with Cutrona et al. (2005), network
support did not emerge as a distinct, reliable support type.
On the basis of a review of the literature, we suggest that
this type of support has yet to be accurately defined; that is,
network support (Cutrona & Russell, 1990), social compan-
ionship (Cohen & Wills, 1985), and belonging support
(Cohen, Mermelstein, Kamarck, & Hoberman, 1985) all
seem to be attempts to capture the same construct. An
alternate possibility is that network support is generally
described as a feeling that support is available from the
members of one’s social network. Given that network sup-
port is intended to capture support across multiple provid-
erers, it seems inappropriate to include in a model of partner-
specific support. In summary, we recommend that network
support be removed from conceptual structures and mea-
sures assessing received partner support.

It is also important to note that, although we did not find
support for the original, rationally derived factor structure of
the SIRRS, we cannot conclude with certainty that its un-
derlying theory of support types is incorrect. As is the case
with any factor analysis, the resulting factor structure is
limited by the items themselves. Indeed, had we opted to
use the DESS rather than the SIRRS, we could not have
found a separate physical comfort factor, because the DESS
has only one item assessing physical comfort. However, it
seems highly unlikely that the structure we found is simply
an artifact of the items we analyzed. First, an adequate
number of items were available to assess other factors
originally proposed for the SIRRS (network support, sepa-
rate factors for emotional and esteem support), yet we did
not find evidence for these factors. Second, the new factor
that emerged—physical comfort—was uniquely associated
with important outcomes, suggesting that it is an important
type of support to be considered in future research. In
summary, we are confident that our unique results were not
overly influenced by the construction of the SIRRS.

**Implications of the Present Study**

Interpretation of the findings must be qualified by several
factors. First, although our dating samples were sufficiently
large, our marital sample was relatively small for conduct-
ing factor analyses. Second, we modified the SIRRS re-
sponse choices from behavioral counts to global percep-
tions, and changed the time frame from a daily to a monthly
assessment, to facilitate the measurement of global percep-
tions of received support. Although we did not change the
actual items, and therefore do not expect to have changed
the factor structure of the items, we cannot rule out the
possibility that factor analyses using the original response
choices may yield different results. Third, our samples
comprised heterosexual, predominantly Caucasian couples,
so we cannot conclude that our findings would generalize to
same-sex couples or ethnic minorities. Fourth, we cannot
conclude that the findings of our incremental validity analy-
yses would generalize to a clinical sample.

There are several implications of the present study for
enhancing theoretical frameworks and basic research de-
digned to explicate the role of social support in intimate
relationships. First, this study robustly demonstrates the
validity of a multidimensional structure of received support
in intimate relationships. A multidimensional model of so-
cial support has been widely accepted in the broader support
literature; however, with the exception of Cutrona and col-
leagues, who used a multidimensional model to examine
enacted support in intimate relationships, few researchers
have adopted a multidimensional approach—much less a
validated multidimensional approach—to the study of part-
ner support. Second, the present study illuminates the spe-
cific dimensions that should be embraced when studying
received support types in intimate relationships. Esteem/
emotional, physical comfort, informational, and tangible
support each demonstrated substantial reliability, validity,
and utility.

Third, we found robust evidence for a new and distinct
type of support received from intimate partners—a support
type we labeled physical comfort. (Comforting physical
behaviors have previously been subsumed under the dimen-
sion of emotional support.) It is possible that physical com-
fort is more likely to be received (i.e., noticed when it
occurs and perceived as supportive) in intimate relation-
ships. Alternatively, it may be received in different types of
relationships but may be more important when received
from intimate partners. Regardless, identification and valid
measurement of physical comfort as a unique type of re-
ceived support facilitates the exploration of such hypothe-
ses. Additionally, the emergence of a physical comfort
dimension distinct from emotional support may lead re-
searchers to examine how nonverbal expressions of support
play a unique role in coping efforts relative to verbal forms of support. Perhaps nonverbal expressions of support are more effective than verbal expressions in the face of particularly devastating or uncontrollable stressors (e.g., loss of a loved one, losing one’s home to a flood).

Finally, this study has implications applicable to the broader support literature. Factor analyses conducted on the ISSB, a measure of support received across multiple relationships, suggested that emotional/esteem, tangible, and informational support types were distinguishable and valid. Our analyses replicated and extended these results in a different measure of received support—the SIRRS. Thus, our findings provide additional evidence regarding the construct validity of dimensions of received support; these three support types likely represent underlying distinct types of support that are not specific to the measure utilized. Additionally, our study is relevant to the functional component approach to studying social support. Functional theories of support suggest that distinct types of support have different implications for individual and dyadic outcomes, depending on contextual issues such as the nature of the problem faced (e.g., Cohen & Wills, 1985; Cutrona & Russell, 1990). However, research has produced inconsistent results in support of functional theories (Pierce, Sarason, & Sarason, 1990; Pierce et al., 1996; Sarason et al., 1990). Consequently, general conclusions cannot be drawn regarding which types of support are most beneficial for coping with particular stressors. Pierce et al. suggested that a lack of psychometrically sound support measures and disagreement about how support types should be distinguished have prevented researchers from adequately testing hypotheses relevant to the functional roles of specific support dimensions. Thus, this research may facilitate a more nuanced understanding of the functionality of support in intimate relationships.

References


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