

Getting in Under the Radar: A Dyadic View of Invisible Support

Maryhope Howland and Jeffry A. Simpson

University of Minnesota, Twin Cities Campus

Psychological Science
 21(12) 1878–1885
 © The Author(s) 2010
 Reprints and permission:
sagepub.com/journalsPermissions.nav
 DOI: 10.1177/0956797610388817
<http://pss.sagepub.com>



Abstract

There are many ways in which the provision of social support can be ineffective. Recent research suggests that the benefits of support may be maximized when it is provided invisibly. What remains unknown, however, is whether invisible support reflects the skillful behavior of support providers or recipients' blissful unawareness, as well as how invisible support is delivered during spontaneous social interactions. We hypothesized that both providers' skillful behavior and recipients' unawareness are necessary for invisible support to be effective, and we sought to document what effective invisible support looks like. Eighty-five couples engaged in a videotaped support interaction in the lab. Support recipients whose partners provided more invisible practical and emotional support (coded by observers) but who reported receiving less support experienced the largest preinteraction-to-postinteraction declines in negative emotions. In the case of practical invisible support, the combination of more support and less awareness of that support also predicted increases in self-efficacy. These results indicate that invisible support is a dyadic phenomenon.

Keywords

close relationships, social support, invisible support

Received 3/25/10; Revision accepted 7/2/10

There is little debate that social support is a feature of good relationships. When it comes to perceptions of available support, this is certainly true; however, the evidence regarding provided support—support that is enacted and experienced—is mixed (Rafaelli & Gleason, 2009). To understand this paradox, Bolger, Kessler, and Zuckerman (2000) examined whether there are costs associated with being aware of receiving support (e.g., indebtedness or inefficacy) that mitigate its potential benefits. They collected diary data from couples in which one member was approaching a major life stressor (taking a bar exam) and found that the benefits of support were greatest on days when the nonstressed partner provided support but the recipient (the exam taker) was not aware of it. On these invisible-support days, support recipients reported the smallest increases in distress.

The concept of invisible support is important, but researchers still do not know how it transpires in couples' actual interactions and why it benefits recipients. Does invisible support reflect skillful behavior by the support provider? Is support recipients' lack of awareness an essential component of effective invisible support? What are the key ingredients to successful provision of invisible support? The research reported here addressed these questions.

One way in which invisible support can be successfully enacted was documented by Bolger and Amarel (2007). They

brought undergraduates into the lab, induced stress in participants (support recipients) by leading them to believe they would be giving a speech, and then manipulated the visibility of the support offered to them.¹ Confederate support providers addressed participants who were randomly assigned to receive visible practical support by making direct comments such as "You know, to give a good talk it's probably most important to summarize what you're going to say at the beginning, and also to make a strong conclusion at the end." In the invisible-support conditions, confederate providers conveyed equivalent information more indirectly, by speaking to the experimenter rather than the participant (e.g., "I've got a question . . . I thought that for this kind of thing, it's probably most important to summarize what you're going to say at the beginning, and also to make a strong conclusion at the end?"). Support recipients in the invisible-support conditions reported the least distress, whereas visible support was detrimental or ineffective. Bolger and Amarel also found that the benefits of

Corresponding Author:

Maryhope Howland, Department of Psychology, University of Minnesota,
 75 E. River Rd., N218-Psyc, Minneapolis, MN 55455
 E-mail: howl0029@umn.edu

invisible practical support were partially mediated by the protection of support recipients' self-efficacy.

Bolger and Amarel's (2007) study clarifies how invisible support works with strangers, but it does not address how and why invisible support works in actual couples who are interacting face-to-face. This type of invisible support—communicated directly between intimate partners—is likely to be an important characteristic of most well-functioning relationships. Bolger et al. (2000) conjectured that the most effective invisible support should involve either preemptive practical support (i.e., preventing the recipient from even needing support) or the purposeful indirect delivery of support. Unfortunately, their diary data could not be used to test these hypotheses, and the experimental data from Bolger and Amarel (2007) do not shed light on how invisible support operates during spontaneous interactions between intimates.

There are two routes by which provided support can be invisible: (a) recipients' unawareness of having received support (a recipient effect) and (b) the subtle or skilled provision of support (a provider effect). If the benefits of invisible support lie entirely with the recipient's lack of awareness, invisible support should be effective because it is indirect, not because it is qualitatively different from visible support. If the benefits of invisible support lie entirely with the provider's skillful behavior, it should not matter whether the recipient is or is not aware of receiving support. This latter possibility has not been directly investigated, but it has been shown that there are costs associated with being aware of receiving support (Shrout, Herman, & Bolger, 2006). A third possibility—the one that inspired this research—is that invisible support is a dyadic phenomenon, one that requires both skillful support by providers and relative lack of awareness by recipients to yield maximal benefits.

Past research has generated inconsistent findings concerning the associations between types of support given (emotional vs. practical) and possible support outcomes (e.g., levels of fatigue vs. anxiety; Shrout et al., 2010). We believe that these mixed results speak less to the stability of the phenomenon and more to the difficulty of capturing it with diary methodologies. To understand how invisible support operates within relationships, research must examine naturally occurring support exchanges, consider the roles of support providers and recipients, and determine what "good" invisible support looks like.

The Current Study

The primary goal of the current study was to examine invisible support during spontaneous interactions between romantic partners. To accomplish this, we examined how recipients' and providers' perceptions of support were associated with benefits when partners discussed a personal goal held by one partner. Because the spontaneous provision of preemptive practical support is difficult to capture in lab interactions, we focused on the subtle delivery of supportive content. Support behaviors

were assessed by trained observers, who coded videotaped discussions for visible and invisible support behaviors.

Our primary hypothesis was that invisible support is a dyadic process with benefits arising from the interaction between the provision of skillful invisible support and recipients' relative lack of awareness that they have received support. We assessed the benefits of invisible support by measuring prediscussion-to-postdiscussion changes on two measures: negative mood and self-efficacy. Although the discussion task was not designed to evoke high levels of stress, discussing an important personal goal should generate some degree of vulnerability and negative affect in many support recipients (Bolger et al., 2000). We expected invisible support that was delivered more effectively ("under the radar," without recipients' full awareness) to produce greater prediscussion-to-postdiscussion decreases in negative affect and increases in self-efficacy among support recipients (Bolger & Amarel, 2007).

We focused on two types of support, emotional and practical, each of which can yield benefits when provided invisibly (Bolger & Amarel, 2007) and can be expressed with varying degrees of visibility or invisibility. Because practical support is often intended to "fix" a recipient's problem, it can convey that the support recipient has—or should have—low self-efficacy (Shrout et al., 2006). Accordingly, we predicted that support recipients would experience benefits in the form of decreases in negative mood and increases in self-efficacy to the extent that their partners provided more invisible practical support but they perceived receiving less practical support during the interactions.

Emotional support, which usually is intended to make recipients feel better, reflects the support provider's perceptions of the disclosed event (e.g., how important it is to the recipient). If provided unskillfully, emotional support can be costly. If provided invisibly, however, emotional support should be beneficial (Bolger et al., 2000). Thus, we predicted that support recipients would experience declines in negative mood to the extent that their partners provided more invisible emotional support but they perceived receiving less emotional support. Bolger and Amarel (2007) did not examine whether invisible emotional support protects self-efficacy. Because emotional support is less likely than practical support to reflect a provider's perceptions of a recipient's ability to handle the problem, we did not anticipate that greater invisible emotional support would yield self-efficacy benefits.

Method

Participants

Participants were recruited by posting flyers around a large Midwestern campus and city. Couples that responded were screened for inclusion criteria. To participate, couples had to be dating exclusively for at least 1 year, and both partners had to be at least 18 years old.

Eighty-five couples (83 heterosexual couples and 2 lesbian couples) met these criteria. Participants were 26.01 years old on average ($SD = 8.50$) and had been together for an average of 3.68 years ($SD = 3.04$). Fifty-seven percent of the couples were living together, and 53% were engaged or married. Eighty-one percent of the sample was White, 8% was Asian, 3.5% was Hispanic, 3% was Black, and 4.5% indicated another ethnicity. Each partner was compensated with \$25 or 6 extra-credit points in a psychology class.

Procedure

Both partners first completed an online questionnaire containing demographic questions and personality and relationship measures. The experimenter then scheduled a lab visit 1 week later. During this visit, both partners were given an overview of the study and told that they would have a videotaped conversation that would be rated by trained observers. The partners were separated and asked to think about a discussion topic after receiving these instructions:

Please describe something you would like to change about *yourself*. This change could be about almost anything, but here are some topics you might consider when thinking about the change you'd like to make (e.g., work, health, relationships with family or friends, etc.). The important thing is that, whatever you write down, it is something you want to change about *yourself*, and that it is NOT directly related to a problem in your relationship.

These instructions were designed to generate discussion topics that would put the disclosing partner in the role of support recipient and the responding partner in the role of support provider without explicitly instructing the responding partner to provide support. These roles were randomly assigned before participants came to the lab. After writing down a possible discussion topic, each partner reported his or her current mood and self-efficacy. Couples were then left alone for 7 min to discuss the recipient's topic. Immediately after the interaction, the partners were led to separate rooms to rate the support provided or received during the interaction and their postinteraction mood and self-efficacy. Couples were then debriefed and compensated.

Measures

Participants completed the following measures, which were embedded in extensive surveys. Unless otherwise noted, all measures were completed by both partners.

Support recipient's mood and self-efficacy. Mood and self-efficacy were assessed immediately before and after the discussion. Mood was assessed using an adapted version of Lorr and McNair's Profile of Mood States (1971; Cranford et al., 2006), which has been used in prior invisible-support studies (e.g., Bolger & Amarel, 2007; Shrout et al., 2006). The negative

moods included anger (*angry, resentful, annoyed*) and anxiety (*on edge, anxious, uneasy*). Anger is associated with the behavioral activation system (Harmon-Jones, 2003), and it is an other-directed negative mood that is particularly relevant to interpersonal contexts. Anxiety reduction is a primary benefit of good support, and it has been a primary outcome measure in past research on invisible support (e.g., Bolger & Amarel, 2007; Bolger et al., 2000). Self-efficacy was measured by three items (*self-sufficient, competent, capable*); one of these items—*self-sufficient*—had been used in previous research (Howland & Rafaeli, 2010). All items were rated on 7-point scales from 1, *not at all*, to 7, *extremely*. Ratings were reliable ($\alpha = .75$ for anger, $.81$ for anxiety, and $.86$ for self-efficacy).

Support received (recipients only). Each recipient's perceptions of the amount of support received from his or her partner was assessed by two items. For a measure of emotional support, recipients were asked: "During your interaction with your partner, how much emotional support (e.g., offers of reassurance, expressions of concern, positive feedback) did you receive?" For a measure of practical support, recipients were asked: "During your interaction with your partner, how much practical support (e.g., advice, suggestions of course of action, offers of direct assistance) did you receive?" Both items were rated on 7-point scales from 1, *none*, to 7, *a lot*.

Perceived support provided (providers only). Each provider's perceptions of the amount of support he or she provided to his or her partner was assessed by two items that were identical to those used to assess support received except that the word "provide" replaced the word "receive" in each question.

Observer-rated support provided. Eight observers independently coded each interaction for specific visible- and invisible-support behaviors. Visibility versus invisibility was assumed to be orthogonal to the type of support (i.e., emotional vs. practical). Thus, each type of support was coded for its amount of invisibility and visibility (e.g., separate scores for visible emotional support and invisible emotional support). On the basis of previous research (e.g., Bolger & Amarel, 2007; Rafaeli & Gleason, 2009), we focused our definitions of invisible and visible support on the *indirect* versus *direct* nature of the support, the provider-recipient *roles*, and the *locus of attention* (e.g., on the partner or problem vs. away from the partner or problem). The definitions of visible and invisible support and of emotional and practical support given to the observers are displayed in Table 1. Note that observers were instructed to code witnessed *support*; thus, codes for invisible and visible support were not likely to capture negative behaviors.

As part of their training, observers were shown exemplars of the four combinations of support (Visibility \times Support Type), and definitions of these constructs were reviewed. Because all coders viewed all interactions, their codings of support visibility (the degree of overtness) and invisibility (the degree to which support was subtle, or under the radar) were

Table 1. Definitions of Support Provided to Coders

Invisible support	Visible support	Emotional support	Practical support
Provider deemphasizes the roles of supporter and supported, more equal and conversation-like	Provider emphasizes the role of supporter and supported, keeps these roles distinct	Support that tries to make the person feel better. This includes offers of reassurance, positive feedback, expressions of concern, etc.	Support that tries to fix the problem. This includes advice, information, offers to help directly, suggestions for courses of action, etc.
Provider uses self or a third person as an example and a way to provide support—draws the focus away from the partner and his/her “problem”	Provider focuses on the partner and his/her problem and draws attention to the partner/problem		
Support is under the radar—this is support in disguise	Support is overt and feels very “supportive”		
Support is indirect, not readily recognizable as support	Support is direct and quickly recognizable as one person providing support to another		
Draws focus away from the partner’s limitations or how upsetting/stressful it is for the person	Focuses on the partner’s limitations and how upsetting/stressful the issue is		

relative to all other interactions. The videotapes were viewed in a staggered fashion, to avoid order effects. Support providers’ behaviors were coded on four items, each pertaining to one of the four support categories (e.g., “To what extent did this person provide *visible emotional* support?”). All items were rated on 7-point scales from 1, *none/very little*, to 7, *a lot*. Averaging observers’ ratings resulted in one score for each provider for each support category. Observers’ ratings were reliable ($\alpha = .77$ for visible emotional support; $\alpha = .77$ for invisible emotional support; $\alpha = .84$ for visible practical support; $\alpha = .75$ for invisible practical support).

Discriminant validity. The following constructs were assessed in the initial survey for purposes of establishing discriminant validity:

- *Relationship quality.* Relationship quality was assessed by the Perceived Relationship Quality Components Scale (PRQC; Fletcher, Simpson, & Thomas, 2000). The PRQC assesses six relationship domains—satisfaction, commitment, intimacy, trust, passion, and love. It was reliable in this sample ($\alpha_s = .91$ for men and .94 for women).
- *Neuroticism.* Neuroticism was assessed by an abbreviated Big-Five Inventory (Goldberg, 1990; $\alpha_s = .82$ for men and .74 for women).
- *Importance of topic (support recipient).* The importance of the discussed topic was assessed before the discussion by one item: “How important is it to you to make this change?” Responses were made on a 7-point scale from 1, *not at all important*, to 7, *extremely important*.
- *Responsiveness (perceived by recipient).* Immediately following the interaction, recipients rated their partners’ (providers’) responsiveness on the Perceived Partner Responsiveness Scale (PPRS; Reis, 2003).

This 18-item measure assessed the degree to which recipients perceived their partners as *understanding*, *validating*, and *caring* ($\alpha = .95$ for men and women).

- *Responsiveness (observer-rated).* The eight observers also rated each provider’s responsiveness using a coding scheme based on Reis’s (2003) PPRS ($\alpha = .82$ for men and women).

Results

Preliminary tests revealed no statistically significant main effects of gender. Correlations between all the support variables are displayed in Table 2. The topics chosen for discussion were diverse. Thirty-five percent were school or work related (e.g., “improve my time-management skills”), 22% were personal-quality focused (e.g., “be less cynical”), 19.5% were health related (e.g., “exercise more”), and 16% involved other relationships (e.g., “better relationship with my grandfather”).

The hypotheses were tested using multiple regression analyses. Because relationship partners were randomly assigned to the role of either support recipient or support provider, the couple was treated as the unit of analysis (Kenny, Kashy, & Cook, 2006). There were six regression models, one for each outcome of interest (anger, anxiety, and self-efficacy) for each type of support (emotional and practical). Each model included the main effect of the outcome measure at Time 1 (T1), observer-rated provision of invisible support, recipients’ perception of support received, and all two-way interactions. Each model also included observers’ ratings of visible support (as a covariate), so that any effects of invisible support could be considered above and beyond any effects of visible support. Including T1 measures of mood and self-efficacy in each model allowed us to test for changes in these measures when their Time 2 (T2) scores were the dependent measure (Cohen & Cohen, 1983). Thus, benefits were operationally defined as declines in negative mood or increases in efficacy.

Table 2. Correlations and Descriptive Statistics for Predictor Variables

Variable	M	SD	Correlation							
			1	2	3	4	5	6	7	
1. Observer-rated visible practical support	4.16	0.70	—							
2. Observer-rated invisible practical support	4.61	0.91	.35**	—						
3. Recipient's perception of practical support	5.47	1.44	.41**	.35**	—					
4. Provider's perception of practical support	5.01	1.57	.38**	.30**	.38**	—				
5. Observer-rated visible emotional support	4.26	0.79	.33**	.52**	.09	.03	—			
6. Observer-rated invisible emotional support	4.31	0.73	.09	.79**	.21	.12	.68**	—		
7. Recipient's perception of emotional support	5.49	1.49	.06	.35**	.37**	.05	.21	.41**	—	
8. Provider's perception of emotional support	4.68	1.47	.22*	.29**	.26*	.29**	.19	.34**	.17	—

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

Our central hypothesis was that the benefits of invisible support should lie in the statistical interaction between greater invisible support enacted by the provider (as rated by observers) and recipients' lower awareness of having received support.² We refer to this interaction as *dyadic invisible support*.

Practical support

We first report results for recipients' changes in mood and efficacy in response to receiving practical invisible support from their partners.

Anger. We predicted that more practical dyadic invisible support would produce larger decreases in anger among support recipients from T1 to T2. As expected, the amount of observer-rated practical support provided (either invisible or visible) by itself did not predict changes in anger; however, practical dyadic invisible support did ($b = 0.35$, $p < .05$; see Fig. 1). The largest declines in anger occurred in discussions characterized by greater observer-rated practical invisible support and lower recipient perceptions of support received. Thus, perceptions of support received moderated the effect of observer-rated practical invisible support in predicting changes in recipients' anger.

Anxiety. A similar pattern emerged for changes in recipients' anxiety ($b = 0.25$, $p < .05$; see Fig. 2). Specifically, the largest declines in anxiety occurred in discussions that involved greater practical dyadic invisible support; perceptions of received support moderated the impact of observer-rated practical invisible support on changes in recipients' anxiety.

Efficacy. Practical dyadic invisible support was also expected to predict increases in self-efficacy. Observer-rated practical support (invisible or visible) alone did not predict changes in efficacy. However, practical dyadic invisible support did ($b = -0.30$, $p < .05$; see Fig. 3). The largest increases in efficacy occurred in discussions characterized by greater practical

dyadic invisible support; perceptions of received support moderated the effect of observer-rated practical invisible support on changes in recipients' self-efficacy.

Emotional support

Anger. We expected that emotional dyadic invisible support would produce decreases in anger. As hypothesized, received support and observer-rated emotional support (either invisible or visible) by themselves were not significant predictors of change in anger; however, emotional dyadic invisible support predicted decreases in anger ($b = 0.22$, $p < .05$; see Fig. 4). The largest decreases occurred in discussions characterized by greater emotional dyadic invisible support; perceptions of received support moderated the effect of these supportive behaviors on changes in recipients' anger.

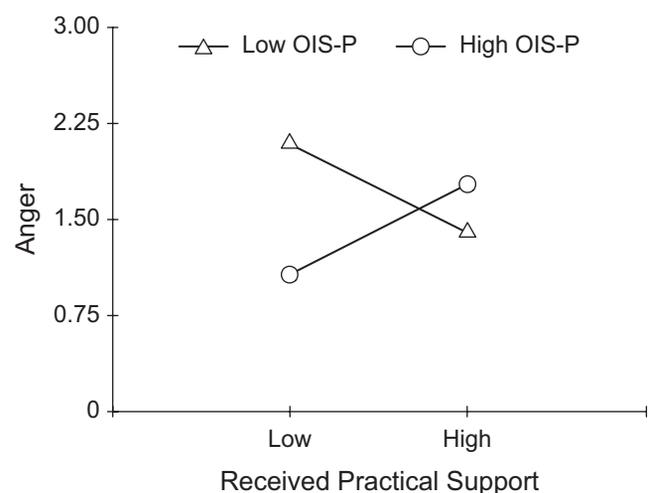


Fig. 1. The effect of practical dyadic invisible support on support recipients' anger. Support recipients' Time 2 anger, controlling for their Time 1 anger, is presented as a function of the amount of practical support they reported receiving and observers' ratings of the amount of invisible practical support provided (OIS-P; for both variables, high = 1 SD above the mean, low = 1 SD below the mean).

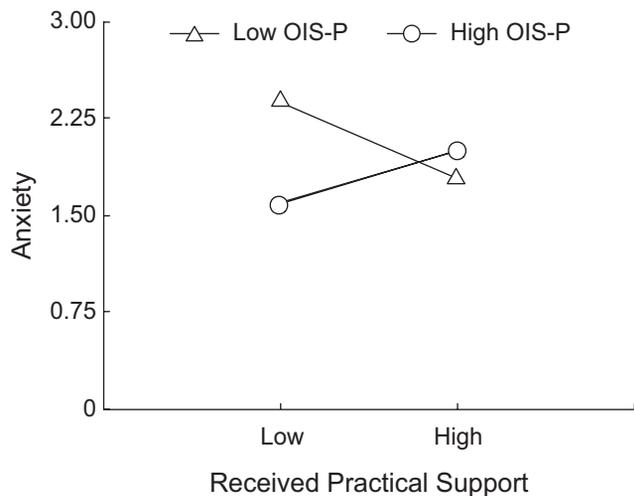


Fig. 2. The effect of practical dyadic invisible support on support recipients' anxiety. Support recipients' Time 2 anxiety, controlling for their Time 1 anxiety, is presented as a function of the amount of practical support they reported receiving and observers' ratings of the amount of invisible practical support provided (OIS-P; for both variables, high = 1 SD above the mean, low = 1 SD below the mean).

Anxiety. As with anger, received support and observed emotional support (invisible or visible) by themselves did not predict changes in anxiety; only emotional dyadic invisible support did ($b = 0.23, p < .05$). Thus, greater emotional invisible support predicted greater decreases in anxiety among support recipients. However, this model yielded a crossover pattern: Recipients who perceived receiving greater emotional support and who had lower levels of observer-rated emotional invisible support also reported declines in anxiety.

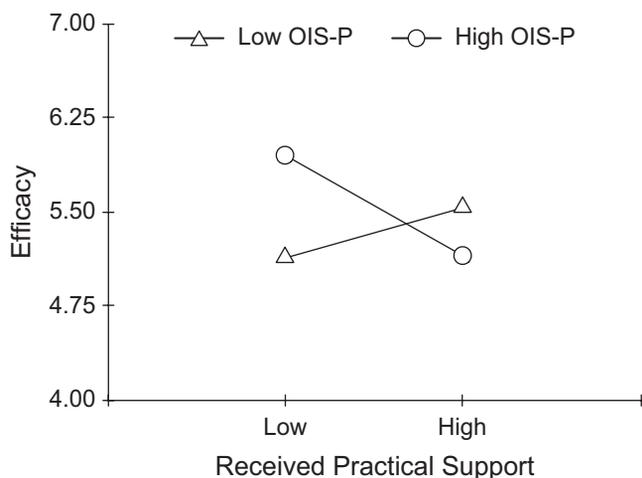


Fig. 3. The effect of practical dyadic invisible support on support recipients' self-efficacy. Support recipients' Time 2 efficacy, controlling for their Time 1 efficacy, is presented as a function of the amount of practical support they reported receiving and observers' ratings of the amount of invisible practical support provided (OIS-P; for both variables, high = 1 SD above the mean, low = 1 SD below the mean).

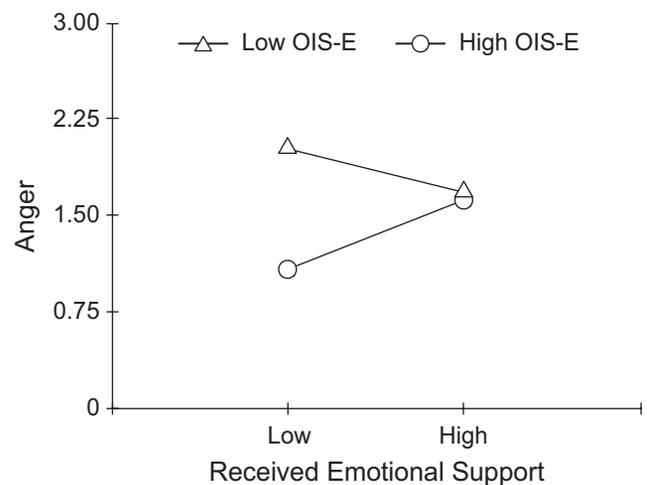


Fig. 4. The effect of emotional dyadic invisible support on support recipients' anger. Support recipients' Time 2 anger, controlling for their Time 1 anger, is presented as a function of the amount of emotional support they reported receiving and observers' ratings of the amount of invisible emotional support provided (OIS-E; for both variables, high = 1 SD above the mean, low = 1 SD below the mean).

To investigate this interaction further, we added gender to the regression model. Although there was no main effect of gender, there was a significant three-way interaction. For female support recipients, there were no significant effects of emotional dyadic invisible support (or its component parts). For male support recipients, however, there were main effects of observer-rated emotional invisible support ($b = -0.87, p < .05$) and emotional dyadic invisible support ($b = 0.41, p < .01$; see Fig. 5). Thus, the predicted pattern was found only for male support recipients.

Efficacy. We did not anticipate that more invisible emotional support would generate increases in self-efficacy among support recipients, and no significant effects emerged in the analysis of emotional support and self-efficacy.

Discriminant validity

The findings reported thus far might also obtain for visible support. To determine whether these benefits are uniquely associated with invisible support behaviors, we reran all of the models, but replaced the dyadic-invisible-support interaction term with the interaction term for observer-rated visible support and perceptions of support received. When we did, none of the interactions involving visible support were statistically significant.

In addition, highly neurotic individuals might be less likely to benefit from support than less neurotic individuals are (Karney & Bradbury, 1995). Moreover, the benefits of invisible support could be affected by relationship length, relationship quality, or the importance of the topic that was discussed. To discount these possible confounds, we reran all

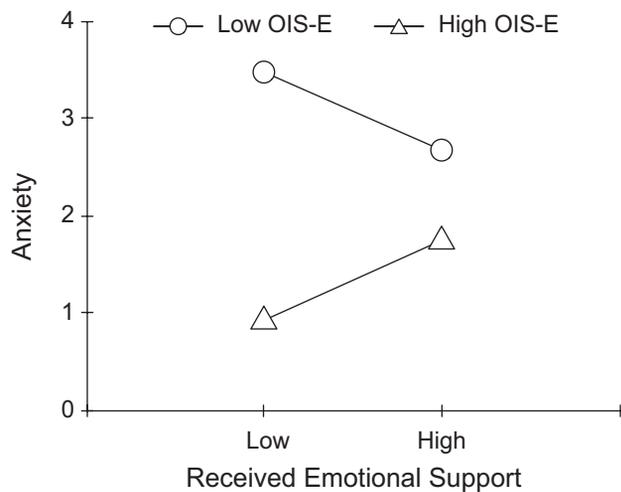


Fig. 5. The effect of emotional dyadic invisible support on male support recipients' anxiety. Support recipients' Time 2 anxiety, controlling for their Time 1 anxiety, is presented as a function of the amount of emotional support they reported receiving and observers' ratings of the amount of invisible emotional support provided (OIS-E; for both variables, high = 1 SD above the mean, low = 1 SD below the mean).

of the models while statistically controlling for each of these variables. When we did, all but one of the significant effects reported remained significant; the exception became marginally significant.³

We also tested whether invisible support merely reflects the skillfulness or responsiveness of support. To do so, we reran the analyses, partialing out recipients' perceptions of their partners' responsiveness. All of the results reported remained significant. We also partialled out observers' ratings of providers' responsiveness. When we did, all but one of the findings reported remained significant: The effects of dyadic invisible emotional support on changes in anxiety became nonsignificant.

Discussion

This research documents how effective invisible support is enacted between romantic partners in spontaneous interactions. The findings confirm that effective invisible support is a dyadic phenomenon, one that involves both a perceptual element (the recipient's low awareness of support received) and the skillful provision of support. As hypothesized, recipients' perceptions of support received consistently moderated the effect of invisible support provided by their partners in predicting both decreases in recipients' negative affect and increases in their self-efficacy. Indeed, in all but one case, the statistical interaction between recipients' perceptions of support received and observers' ratings of providers' support behavior was the only significant predictor of prediscussion-to-postdiscussion changes in mood.

In addition to showing that effective invisible support has positive outcomes, this research clarifies what good

invisible support looks like in unstructured conversations. Invisible support is clearly distinguishable from visible support, and it can be coded from couples' interactions. We found, for example, that effective invisible support deemphasizes the roles of provider and recipient, deflects attention away from the recipient's problem and distress, and conveys supportive content under the radar, so that recipients remain relatively unaware that they have gotten support from their partners.

There was one unanticipated finding. In the case of anxiety, the beneficial effects of receiving invisible emotional support emerged only for male support recipients. Although we did not anticipate this gender difference, it is consistent with gender roles and the typical socialization of males, who are taught to be agentic and independent in Western cultures (Eagly, 1987). When men are not aware they have received invisible emotional support, its benefits should be more powerful because this form of support may preserve a sense of agency and independence in men.

It is important to note that the association between invisible support and changes in anxiety was reduced to nonsignificance when observer-rated responsiveness was included in the regression models. Invisible support and partner responsiveness may work hand in hand within support-provision systems. In all but this one case, however, controlling for partner responsiveness did not change the statistical significance of the hypothesized invisible-support effects.

What allows support recipients to remain blissfully unaware of their partners' invisible support? Trust may play an important role (Reis, Clark, & Holmes, 2004; Simpson, 2007). If recipients are confident that their partners have good intentions, they may be less likely to monitor their partners' behavior closely and to interpret supportive overtures as actual attempts to provide support. This might explain why invisible support continues to work, even in long-term relationships in which partners know each other very well.

In our study, support recipients discussed something important that they wanted to change about themselves, which may have made them feel vulnerable. We believe this was necessary to increase the likelihood that the roles of support provider and support recipient would remain distinct. The current findings, therefore, may not generalize to different social situations, especially those that do not elicit vulnerability in one partner.

In conclusion, this research demonstrates that the provision of effective invisible support is a dyadic process. Skillfully provided support is only half the battle in helping partners; support recipients must also be relatively unaware that support has come their way, at least when problems and stressors are not extreme. This research also reveals what effective invisible support looks like in spontaneous conversations. Therapists may be able to use this information to help partners (both as support providers and as support recipients) improve the long-term functioning and quality of their relationships.

Declaration of Conflicting Interests

The authors declared that they had no conflicts of interest with respect to their authorship or the publication of this article.

Notes

1. Though initially studied in stressful situations, invisible support also operates in daily events (Maisel & Gable, 2009).
2. Using the provider's perspective of support provided yielded a similar pattern of results.
3. In predicting anxiety from emotional support, the interaction between observer ratings of invisible support and recipients' perceptions of support became marginally significant when relationship length ($p < .06$) and importance of the topic ($p < .07$) were included in the models.

References

- Bolger, N., & Amarel, D. (2007). Effects of social support visibility on adjustment to stress: Experimental evidence. *Journal of Personality and Social Psychology, 92*, 458–475.
- Bolger, N., Kessler, R.C., & Zuckerman, A. (2000). Invisible support and adjustment to stress. *Journal of Personality and Social Psychology, 79*, 953–961.
- Cohen, J., & Cohen, P. (1983). *Applied multiple regression/correlation analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Erlbaum.
- Cranford, J.A., Shrout, P.E., Iida, M., Rafaeli, E., Yip, T., & Bolger, N. (2006). A procedure for evaluating sensitivity to within-person change: Can mood measures in diary studies detect change reliably? *Personality and Social Psychology Bulletin, 32*, 917–929.
- Eagly, A. (1987). *Sex differences in social behavior: A social-role interpretation*. Hillsdale, NJ: Erlbaum.
- Fletcher, G.J.O., Simpson, J.A., & Thomas, G. (2000). The measurement of perceived relationship quality components: A confirmatory factor analytic approach. *Personality and Social Psychology Bulletin, 26*, 340–354.
- Goldberg, L.R. (1990). An alternative “description of personality”: The Big-Five factor structure. *Journal of Personality and Social Psychology, 59*, 1216–1229.
- Harmon-Jones, E. (2003). Anger and the behavioral approach system. *Personality and Individual Differences, 35*, 995–1005.
- Howland, M., & Rafaeli, E. (2010). Assessing empathic accuracy with daily diary data. *Journal of Personality, 78*, 1437–1468.
- Karney, B.R., & Bradbury, T.N. (1995). The longitudinal course of marital quality and stability: A review of theory, method, and research. *Psychological Bulletin, 118*, 3–34.
- Kenny, D.A., Kashy, D.A., & Cook, W.L. (2006). *Dyadic data analysis*. New York, NY: Guilford Press.
- Lorr, M., & McNair, D.M. (1971). *The Profile of Mood States manual*. San Diego, CA: Educational and Industrial Testing Service.
- Maisel, N.C., & Gable, S.L. (2009). The paradox of received social support. *Psychological Science, 20*, 928–932.
- Rafaeli, E., & Gleason, M.E.J. (2009). Skillful support within intimate relationships. *Journal of Family Theory and Review, 1*, 20–37.
- Reis, H.T. (2003). *A self-report measure of perceived partner responsiveness*. Unpublished manuscript, University of Rochester, Rochester, NY.
- Reis, H.T., Clark, M.S., & Holmes, J.G. (2004). Perceived partner responsiveness as an organizing construct in the study of intimacy and closeness. In D. Mashek & A. Aron (Eds.), *The handbook of closeness and intimacy* (pp. 201–225). Mahwah, NJ: Erlbaum.
- Shrout, P.E., Bolger, N., Iida, M., Burke, C., Gleason, M.E.J., & Lane, S.P. (2010). The effects of daily support transactions during acute stress: Results from a diary study of bar exam preparation. In K.T. Sullivan & J. Davila (Eds.), *Support processes in intimate relationships* (pp. 175–199). New York, NY: Oxford University Press.
- Shrout, P.E., Herman, C.M., & Bolger, N. (2006). The costs and benefits of practical and emotional support on adjustment: A daily diary study of couples experiencing acute stress. *Personal Relationships, 13*, 115–134.
- Simpson, J.A. (2007). Psychological foundations of trust. *Current Directions in Psychological Science, 16*, 264–268.