

**Motivational Underpinnings of Successful Support Giving:  
Compassionate Goals Promote Matching Support Provision**

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### **Abstract**

What enables people to give support that effectively addresses others' needs? Four studies examined the role of prosocial motivation, namely compassionate goals, in providing support that addresses recipients' needs ("matching" support). Because people with compassionate goals are motivated to promote others' well-being, we hypothesize that they would be more likely to engage in perspective taking, which should help them identify and give matching support. Consistent with this hypothesis, providers' compassionate goals were associated with greater intention to give matching support (Studies 1 – 3) and giving matching support in the real-world (Study 4). This effect was partially mediated by providers' greater perspective taking of recipients' needs (Study 3). Collectively, these studies highlight the role of prosocial motivations in successful support provision.

#### *Broader Impact Statements:*

Successful support provision requires support providers to identify support recipients' needs and provide support accordingly (i.e., matching support provision). The present research shows that compassionate goals, a prosocial motivation, can help people identify and give matching support. Broadly, the results from this research contribute to the field of personal relationships by highlighting the motivational processes that can lead to successful support provision.

**Keywords:** Social support; Compassionate goals; Responsiveness; Motivation

Social support is one of the strongest predictors of well-being and health (Cohen & Wills, 1985; Feeney & Collins, 2015; Holt-Lunstad et al., 2010; Lee, Ybarra, Gonzalez, & Ellsworth, 2018; Uchino, 2006). However, receiving social support does not always benefit support recipients (Barrera, 1986; Bolger, Zuckerman, & Kessler, 2000; Howland & Simpson, 2010). For example, in a diary study of romantic couples, people who received support from their partner experienced increased stress, anxiety, and depressed mood (Bolger et al., 2000).

Why do some support provisions fail to help recipients? Many studies have investigated this issue from the perspective of support recipients. For example, receiving explicit or visible support may undermine recipients' sense of self-efficacy by drawing attention to recipients' incompetence (see Zee & Bolger, 2019). Recipients' personality traits such as low self-esteem or insecure attachment style can lead to perceiving support as less supportive (Collins & Feeney, 2004; Marigold, Holmes, & Ross, 2007). Other studies show that receiving support is beneficial when recipients feel that their partner is being responsive (Maisel & Gable, 2009; see Reis & Gable, 2015).

Although characteristics of recipients such as attachment insecurity may lead them to perceive support to be unresponsive, provider characteristics may also influence whether recipients benefit from receiving support. Specifically, support provision may not be successful when the provider fails to address the needs of the recipients. Consider the following scenario: Mary had an argument with her colleague at work. Mary returns home after work to vent her feelings to her partner, John. However, instead of helping her vent, John tries to give Mary advice on how to deal with her colleague. Mary is disappointed and even annoyed that John is suggesting solutions to her problem when what she wanted from him in that moment was to just let her blow off steam. Mary feels that John is not being responsive to her needs. John has failed

to identify what Mary wanted in this situation and ended up providing support that does not address Mary's needs, with negative consequences for their relationship.

Multiple perspectives in social support research posit that successful support provision involves identifying the recipient's needs and providing support that *matches* the recipient's specific goals in that context (Cohen & McKay, 1984; Cutrona, 1990; Cutrona, Cohen, & Igram, 1990; Cutrona & Russell, 1990; Zee, Bolger, & Higgins, 2020). For example, Horowitz and colleagues (2001) randomly assigned participants to talk about a problem that involved not knowing what to do or a problem that involved feeling badly to an interaction partner who was randomly assigned to provide them with informational support or emotional support. Results showed that participants who received support that matched their needs (e.g., receiving informational support for a problem that involved not knowing what to do) were more satisfied with the interaction and experienced lower negative affect than those who received support that did not match their needs (e.g., receiving emotional support for the same problem). Similarly, people who received informational support (rather than emotional support) from a spouse after sharing an emotional experience reported lower marital satisfaction and perceived partners as less sensitive (Cutrona et al., 2007). More recently, Cavallo, Zee, and Higgins (2016) demonstrated that participants who tailored their support provision to fit recipients' needs (i.e., restoring value, truth, or control needs) effectively reduced recipients' negative mood. Based on these studies, a key part of what makes support provisions successful is being able to identify and address the recipients' needs.

What enables people to give support that addresses recipients' needs? The present research investigates the role of prosocial motivation, namely compassionate goals, in facilitating identification and giving of support that matches recipients' needs (i.e., matching support).

### **Motivational Underpinnings of Successful Support Provision**

People provide support for various reasons (e.g., Batson & Shaw, 1991; Clark & Mills, 1979). For example, support providers may be motivated by altruistic concerns (e.g., caring for recipients' well-being) or egoistic concerns (e.g., wanting to be praised or to receive help in return). Broadly, studies from various research traditions suggest that support provision is more successful when it is "otherish" or motivated by concern for others' well-being than "selfish" or motivated by concern for the self to the exclusion of others (Crocker, Canevello, & Brown, 2017). For instance, recipients benefited more from receiving support when providers were intrinsically motivated to help them rather than when providers were pressured into helping them (Weinstein & Ryan, 2010). Studies show that compassionate love is associated with increased support provision in close relationships (Sprecher & Fehr, 2005). Similarly, people with compassionate goals give support that is perceived by recipients as more supportive (Crocker & Canevello, 2008). On the other hand, when people have a "partner-achievement goal," or a personal goal for recipients' successful achievement, they tend to offer unhelpful support that undermines recipients' goal-pursuit (Kappes & Shrout, 2011). Similarly, self-image goals are associated with lower responsiveness and less support provision to relationship partners (Crocker & Canevello, 2008).

Although extant research suggests that people with altruistic (vs. egoistic) motives tend to be perceived as more supportive, no research has examined whether they give the types of support that actually matches the recipients' needs. In the present research, we propose that people who give support motivated by concern for others' well-being are more likely to give matching support. Specifically, people with compassionate goals should tend to identify and provide support that fits the needs of recipients.

Moreover, people with compassionate goals are motivated to be supportive, constructive, and not harmful to others because they care about the well-being of others in addition to themselves (Crocker & Canevello, 2008, 2012). In support provision contexts, their goal to help others should lead them to take recipients' perspectives so they can identify recipients' needs and give support that effectively addresses those needs. Thus, we predict that compassionate goals should foster perspective taking, which in turn should facilitate identification and giving of matching support.

### **Overview of the Present Research**

The present research examined whether compassionate goals are associated with giving matching support. Based on prior work (e.g., Cavallo et al., 2016; Cutrona & Russell, 1990; Zee et al., 2020), we defined matching support as the type(s) of support that addresses recipients' needs. To provide converging evidence, we employed multiple study designs and approaches to test this hypothesis. In Studies 1-3, we used an established measure of matching support from previous research (Cavallo et al., 2016): Across several hypothetical scenarios, Cavallo and colleagues (2016) manipulated support recipients' needs and examined what types of support would best address recipients' needs. For example, in a scenario in which the support recipient needed help hosting a party at home, participants indicated that instrumental support (e.g., picking up party supplies) would more effectively address his or her needs than other types of support (e.g., providing emotional support). Using this approach in several other scenarios, Cavallo and colleagues (2016) categorized the types of support that address recipients needs as matching support and other types of support as non-matching support. We used these scenarios to test whether compassionate goals are associated with provision of matching (vs. non-matching) support (Studies 1-3), and tested perspective taking as a potential mechanism

underlying the link between compassionate goals and matching support provision (Study 3). Study 4 tested our hypothesis in a more ecologically valid setting by examining actual support provision among friend dyads. Specifically, in a dyadic study we test whether providers' compassionate goals predict matching support provision to recipients. All study procedures in this article were approved by the Institutional Review Board at the Ohio State University.

### Study 1

Study 1 examined whether people with compassionate goals can accurately identify matching support using a validated measure of matching support (Cavallo et al., 2016). Participants read several scenarios in which a protagonist sought help. In each scenario, the protagonist discussed a specific need to be fulfilled (e.g., lack of confidence). Participants were instructed to indicate how they would help by choosing *one* support strategy among six options (i.e., one matching support type and 5 non-matching support types). We hypothesized that compassionate goals would be associated with selecting more matching support strategy (e.g., boosting the person's confidence) across scenarios.

### Method

**Participants.** We recruited 120 participants (59 females,  $M_{age} = 35.88$ ,  $SD_{age} = 11.15$ ; 73.3% Caucasian/White, 10.8% Asian, 10.8% African American/Black, 2.5% Hispanic, 1.7% Other, 0.8% American Indian) from Mechanical Turk in October 2017. A power analysis based on the effect sizes reported in Cavallo et al. (2016) indicated that a sample size of 110 provides 90% power to detect a significant effect. To ensure sufficient power, we determined our sample size as 120 prior to data collection. No data were analyzed prior to completing data collection. Participants were monetarily compensated for their responses to the online survey.

**Measures and procedure.** Participants first completed measures of compassionate goals and self-image goals toward people in general (described below). Then, participants learned that they would read about problems people had reported and indicate how they would like to help. To make this task seem more real, we told participants that their responses might be posted on a website that provides advice to common problems people face in daily lives. In reality, participants read six hypothetical support scenarios adapted from Cavallo and colleagues (2016). Order of scenarios was randomized.

**Compassionate goals.** Compassionate goals toward others were measured with 8 items (Crocker & Canevello, 2008), rated on a scale ranging from 1 (*not at all*) to 5 (*very much so*). All items began with the phrase “In general, in my relationship with others, I try to...” The items were: “make a positive difference in others’ life,” “be aware of the impact my behavior might have on others’ feelings,” “avoid neglecting my relationship with others,” “be supportive of others,” “avoid doing anything that would be harmful to others,” “avoid being selfish or self-centered,” “have compassion for others’ mistakes and weaknesses,” and “be constructive in my comments to others.” These ratings were averaged to create a composite score ( $\alpha = .92$ ,  $M = 4.38$ ,  $SD = .69$ ).

**Support scenarios.** For each support scenario, participants were first presented with initials of the protagonist who described a problem (“I am hosting a party tomorrow...I won’t have time to get to the train station on time to pick up my sister...”). Then, participants were asked, “If [initials of the poster] were a close friend of yours, how would you be most likely to help him/her?” For each of the six scenarios (see Appendix), participants chose one of six support strategies, one of which reflected *matching support* (e.g., “by picking up [XX]’s sister...”) and five reflected *non-matching support* (e.g., “by consoling and providing emotional



support”) as established in Cavallo et al. (2016). We tallied the number of matching support choices to create an index of matching support across all scenarios (i.e., participant received one point for each matching support selected, yielding a minimum score of 0 and a maximum score of 6;  $M = 4.38$ ,  $SD = .69$ ).

**Covariates.** Because support provision can be motivated by egoistic motivations (e.g., Crocker & Canevello, 2008; Kappes & Shrout, 2011), we assessed participants’ self-image goals toward others with 9 items (Crocker & Canevello, 2008;  $\alpha = .86$ ,  $M = 3.63$ ,  $SD = .79$ ). All items began with the phrase, “In general, in my relationship with others, I try to,” and were rated on a scale ranging from 1 (*not at all*) to 5 (*very much so*). Examples include “avoid showing my weaknesses” and “demonstrate my positive qualities.” Because self-image goals often have a moderately positive association with compassionate goals, including them as a covariate can help examine the unique role of compassionate goals in matching support provision.

## Results and Discussion

To test our hypothesis, we conducted a multiple regression with compassionate goals as the predictor and the matching support score as the outcome variable. As predicted, compassionate goals were associated with choosing more matching support strategies,  $\beta = .27$ ,  $p = .003$ , 95% CI = [.19, .88]. Controlling for self-image goals in the analysis did not substantively change the results,  $\beta = .25$ ,  $p = .011$ , 95% CI = [.12, .85]. These findings provide initial evidence that compassionate goals are associated with selecting more matching support strategies in different support contexts.

## Study 2

Study 2 was designed to address some limitations of Study 1. First, the forced choice paradigm in Study 1 may not accurately reflect real-world support provision, in which people

can provide multiple types of support, both matching and non-matching. Thus, rather than choosing one support type, in Study 2 participants rated their intention to provide different types of support, matching and non-matching. We tested whether compassionate goals predict greater intention to give matching support *over* non-matching support, indicating that people high in compassionate goals prioritize matching support (rather than giving *any* type of support). Second, we included several additional covariates to better ascertain the unique role of compassionate goals in matching support provision. Participants read the same six scenarios as in Study 1. We hypothesized that providers' compassionate goals would be associated with greater intention to provide matching support over non-matching support.

### **Method**

**Participants.** Participants ( $N = 121$ ; 48 females,  $M_{\text{age}} = 35.47$ ,  $SD_{\text{age}} = 11.44$ , 78.5% Caucasian/White, 6.6% African American/Black, 5.0% Hispanic, 4.1% Asian, 3.3% Other, 2.5% American Indian) were recruited from Mechanical Turk in January 2017. As in Study 1, we aimed to recruit 120 participants to ensure at least a 95% power to detect our effects. Participants were monetarily compensated for their responses to an online survey. No analyses were conducted prior to completion of data collection.

**Measures and procedure.** Participants completed the questionnaires described below, then read the six hypothetical support scenarios from Study 1 with two modifications: First, we asked participants to indicate their willingness to provide matching and non-matching support in all scenarios. Second, to increase the relevance of the hypothetical scenarios, participants were instructed to imagine that their friends were experiencing the issues described in the scenarios. As in Study 1, the order of scenarios was randomized.

**Compassionate goals.** Compassionate goals toward friends were measured with 8 items (Crocker & Canevello, 2008;  $\alpha = .91$ ,  $M = 4.21$ ,  $SD = .67$ ), rated on a scale ranging from 1 (*not at all*) to 5 (*very much so*). The items were identical to those in Study 1 except “others” was replaced with “friends” to measure compassionate goals toward friends specifically (vs. others in general).

**Support scenarios.** Using a 7-point scale (1 = *not at all*, 7 = *very much*), participants rated each support strategy by responding to the following questions: “*How well would this type of help meet your friend’s needs in this situation?*” “*How effective would this type of help make your friend feel?*” and “*How likely would you be to help your friend in this way?*” As done in Cavallo et al. (2016), ratings for matching support strategies across all scenarios were averaged to create an index of *intention to give matching support* ( $\alpha = .97$ ); ratings for non-matching support strategies across all scenarios were averaged to create an index of *intention to give non-matching support* ( $\alpha = .97$ ).

**Covariates.** Because dispositional orientations toward locomotion and assessment can influence support provisions and therefore might provide an alternative explanation for results (Cavallo et al., 2016), we included the regulatory mode questionnaire (RMQ; Kruglanski et al., 2000). Twelve items measured locomotion orientations (e.g., “I don’t mind doing things even if they involve extra effort,” “I am a ‘doer’”) and 12 items measured assessment orientation (e.g., “I often compare myself with other people,” “I often feel that I am being evaluated by others”). Participants rated their agreement with these items on a scale from 1 (*strongly disagree*) to 5 (*strongly agree*). Responses were averaged to create indices of locomotion ( $\alpha = .84$ ;  $M = 3.73$ ,  $SD = .67$ ) and assessment ( $\alpha = .85$ ;  $M = 3.12$ ,  $SD = .76$ ) orientations. To control for socially desirable responding, we used the 6-item lie subscale from the RMQ (e.g., “I always make the

right decision,” “I have never hurt another person’s feelings”;  $\alpha = .68$ ;  $M = 2.38$ ,  $SD = .77$ ).

Finally, as in Study 1, we assessed self-image goals toward friends ( $\alpha = .87$ ;  $M = 3.25$ ,  $SD = .84$ ).

## Results and Discussion

**Preliminary analyses.** Table 1 presents correlations among all variables. First, to test whether participants showed greater intention to give matching support over non-matching support, we conducted a repeated-measures ANOVA with support type (matching vs. non-matching) as a within-subjects factor. Consistent with Cavallo et al. (2016), participants reported greater intention to give matching support ( $M = 5.60$ ,  $SD = 1.07$ ) over non-matching support ( $M = 4.75$ ,  $SD = .99$ ),  $F(1, 120) = 109.35$ ,  $p < .001$ ,  $\eta^2 = .48$ , 95% CI = [.69, 1.01].

**Main analyses.** To test our main prediction that compassionate goals are associated with greater intention to provide matching support *over* non-matching support, we conducted a repeated-measures ANOVA with support type (matching vs. non-matching) as a within-subjects factor and mean-centered compassionate goals as a predictor of support provision intentions. Mean-centering the predictor provides more accurate estimates of within-subjects effects (see Schneider et al., 2015). This analysis revealed a main effect of support type,  $F(1, 119) = 134.80$ ,  $p < .0001$ ,  $\eta^2 = .53$ , as well as a main effect of compassionate goals,  $F(1, 119) = 53.49$ ,  $p < .001$ ,  $\eta^2 = .31$ , and a significant interaction between compassionate goals and support type,  $F(1, 119) = 28.92$ ,  $p < .001$ ,  $\eta^2 = .20$  (see Figure 1). As predicted, the positive association between compassionate goals and the intention to give matching support was stronger ( $b = .66$ ,  $t = 9.55$ ,  $p < .0001$ , 95% CI = [.80, 1.22]) than the association between compassionate goals and non-matching support ( $b = .20$ ,  $t = 2.22$ ,  $p = .03$ , 95% CI = [.03, .59]).

To further test our prediction that compassionate goals are associated with greater intention to provide matching support over non-matching support, we examined whether

compassionate goals uniquely relate to matching support and non-matching support respectively. Here, we conducted two additional analyses regressing matching support on compassionate goals (controlling for non-matching support) and non-matching support on compassionate goals (controlling for matching support). Compassionate goals predicted greater intention to give matching support,  $b = .83$ ,  $t = 8.79$ ,  $p < .0001$ , 95% CI = [.64, 1.01] and marginally less intention to give non-matching support,  $b = -.25$ ,  $t = -1.80$ ,  $p = .074$ , 95% CI = [-.53, .03]. Taken together, these results corroborate our hypothesis: Higher compassionate goals were associated with greater intention to give matching support over non-matching support.

Prior research has shown that an individual's self-regulatory mode can influence the identification and intention to provide matching support (Cavallo et al., 2016). Further, the motivation to demonstrate one's desirable image can influence support processes (e.g., Crocker & Canevello, 2008). Thus, we conducted an additional analysis, in which we entered locomotion orientation, assessment orientation, self-image goals, and compassionate goals, as well as their interactions with support type in the model as simultaneous predictors to understand whether compassionate goals predict matching support provision above and beyond regulatory mode and self-image goals. The results revealed that only the Compassionate Goals X Support Type interaction significantly predicted intention to giving matching support over non-matching support,  $F(1, 116) = 24.66$ ,  $p < .001$ ,  $\eta^2 = .18$ , suggesting that the findings cannot be explained by the covariates.<sup>1</sup> Controlling for social desirability and its interaction with support type did not alter the results substantively; the Compassionate Goals X Support Type interaction remained significant ( $p < .001$ ). These results provide further evidence that compassionate goals may be uniquely associated with greater intention to provide matching support.

### Study 3

Study 3 sought to build on previous studies by testing perspective taking as a potential mechanism that explains the link between compassionate goals and matching support. Giving matching support requires providers to take the perspective of the recipient to understand and identify his or her needs. Because people with compassionate goals are motivated to promote others' well-being (Crocker & Canevello, 2008), they might engage in more perspective taking to understand recipients' needs. To test this possibility, we asked participants to complete the same key measures as in Study 2. In addition, we assessed the extent to which they engaged in perspective taking while they imagined helping their friends. We hypothesized that compassionate goals are associated with more perspective taking, which in turn, predicts greater intentions to give matching support.

### **Method**

**Participants.** We recruited 121 participants (55 females,  $M_{\text{age}} = 33.79$ ,  $SD_{\text{age}} = 10.39$ , 82.6% Caucasian/White, 7.4% Asian, 6.6% African American/Black, 2.5% Hispanic, 0.8% Other) from Mechanical Turk in December 2017. As with Studies 1 & 2, we aimed to recruit 120 participants to ensure at least a 95% power to detect our effects. Participants were monetarily compensated for their responses to an online survey. No data were analyzed prior to completion of data collection.

**Measures and procedure.** Participants began the study by completing the measures of compassionate goals ( $\alpha = .91$ ;  $M = 4.06$ ,  $SD = .72$ ) and self-image goals toward friends ( $\alpha = .88$ ;  $M = 3.13$ ,  $SD = .82$ ). The latter measure was used as a covariate. Then, they read the same support scenarios as in Study 2 and rated their *intention to give matching support* ( $\alpha = .97$ ) and *intention to give non-matching support* ( $\alpha = .98$ ) with identical items as in Study 2.

**Perspective taking.** To test the hypothesis that perspective taking facilitates providing matching support, we assessed the extent to which participants engaged in perspective taking ( $\alpha = .91$ ;  $M = 6.02$ ,  $SD = 1.11$ ) as they imagined giving support to their friends. These items began with the phrase, “As you were thinking about how to help your friends, how much did you...” The items were “try to take their perspectives,” “try to imagine how they would feel,” and “focus on understanding what they would be going through.” Participants used a 7-point scale (1 = *not at all*, 7 = *very much*) to indicate their response.

Because the correlation between compassionate goals and perspective taking was high ( $r = .64$ ), we tested whether these two measures were empirically distinct using confirmatory factor analysis. Based on our prediction, we specified a two-factor model where the eight items for compassionate goals loaded onto one factor and the three items for perspective taking loaded on the other factor. We compared the fit of the hypothesized two-factor model against the alternative one-factor model where all eleven items loaded on a single factor. The results showed that the two-factor model provided a significantly better fit than a single-factor model,  $\Delta\chi^2(1) = 134.87$ ,  $p < .001$ , indicating an empirical distinction between compassionate goals and perspective taking.

## Results

**Preliminary analyses.** Table 2 presents correlations among all key variables. Consistent with findings from previous studies, participants on average reported greater intention to provide matching support ( $M = 5.69$ ,  $SD = .97$ ) over non-matching support ( $M = 5.12$ ,  $SD = 1.09$ ),  $F(1, 120) = 73.71$ ,  $p < .0001$ ,  $\eta p^2 = .38$ , 95% CI = [.44, .70].

**Main analyses.** We conducted a repeated-measures ANOVA with support type (matching vs. non-matching) as a within-subject factor and mean-centered compassionate goals

as a predictor on support provision intention. The results revealed a significant main effect of support type,  $F(1, 119) = 75.21, p < .0001, \eta^2 = .39$ , and a significant main effect of compassionate goals,  $F(1, 119) = 83.62, p < .0001, \eta^2 = .41$ . There was a marginally significant interaction between compassionate goals and support type,  $F(1, 119) = 3.22, p = .075, \eta^2 = .03$  (see Figure 2). Simple slopes analyses indicated that compassionate goals predicted greater intention to give matching support,  $b = .69, t = 10.45, p < .0001, 95\% \text{ CI} = [.76, 1.12]$  and also greater intention to give non-matching support,  $b = .48, t = 6.00, p < .0001, 95\% \text{ CI} = [.51, 1.02]$ . As in Study 2, we conducted two additional analyses to understand the unique role of compassionate goals in predicting matching and non-matching support separately. Compassionate goals related positively to intention to give matching support (controlling for non-matching support),  $b = .57, t = 7.13, p < .0001, 95\% \text{ CI} = [.41, .73]$  but not to intention to give non-matching support (controlling for matching support),  $b = -.03, t = .23, p = .82, 95\% \text{ CI} = [-.28, .23]$ . Because compassionate goals were correlated with self-image goals in this study ( $r = .24, p = .009$ ), we conducted an additional analysis controlling for self-image goals and their interaction with support type. The results revealed a significant compassionate goals X support type interaction,  $F(1, 118) = 4.80, p = .031, \eta^2 = .04$ . Consistent with findings from Study 2, as higher compassionate goals were associated with greater intention to give matching support over non-matching support. In contrast, self-image goals were marginally associated with greater intention to give *non-matching* support over matching support,  $F(1, 118) = 3.32, p = .071, \eta^2 = .03$ .

***Does perspective taking explain the link between compassionate goals and matching support intention?*** To test whether perspective taking could be the underlying mechanism linking compassionate goals to matching support intention, we conducted a mediation analysis



using Model 4 of the PROCESS macro for SPSS (Hayes, 2018) with 10,000 bootstrap samples. We included compassionate goals as a predictor, matching support intention as an outcome variable, and perspective taking as a mediator (controlling for non-matching support intention). As expected, the indirect effect was significant, 95% CI for indirect effect = [.09, .32], indicating that compassionate goals predict matching support provision through perspective taking (see Figure 3). Controlling for self-image goals did not substantively change the results (95% CI for indirect effect = [.12, .34]).

## **Discussion**

Using a validated scenario-based matching support measure (Cavallo et al., 2016), Studies 1-3 showed a strong link between compassionate goals and matching support intention. Participants high in compassionate goals were not only more likely to choose matching support among several options, but indicated a greater intention to provide matching support over non-matching support. Further, findings from Study 3 suggest that part of the association between compassionate goals and matching support intention may be driven by perspective taking.

Nevertheless, because Studies 1 – 3 relied on hypothetical scenarios to assess matching support, whether the current findings generalize to real-world support provision contexts is unclear. To address this issue, we conducted another study to examine actual support exchange between dyads.

## **Study 4**

Building on the results from previous studies, the goal of Study 4 was to examine whether compassionate goals predict actual matching support provision in real relationships. We recruited same-sex college student dyads and measured matching support provision by examining the link between providers' reports of the type of support they gave (emotional vs.

practical support) and recipients' reports of the type of support they wanted (emotional vs. practical support). This method allowed us to more directly test our hypothesis that compassionate goals are associated with actual matching support provision.

## Method

**Participants.** We recruited 100 same-sex dyads (200 participants; 148 females;  $M_{age} = 20.22$  years,  $SD_{age} = 2.21$ ; 85.7% White/Caucasian, 9.7% Asian, 6.1% African American/Black, 2.6% Other, and 1.5% American Indian/Alaska Native; 4.1% Hispanic/Latino) at a large Midwestern university in April 2011. Participants were compensated with gift cards to spend at a local ice-cream store for their responses to the survey. No data were analyzed prior to completing data collection.

**Procedure.** Research assistants approached same-sex dyads on the university campus and asked them to complete a *paper-and-pencil survey*. Both members of the dyads gave their consent and completed the survey independently without discussing their responses with their partner. Of the participants, 71.9% reported that they and their partner were friends, 21.6% roommates, 5.5% classmates, and 1.0% coworkers. They had known each other for an average of 2.56 years ( $SD = 3.15$  years).

**Measures.** Participants completed the measures of compassionate goals and self-image goals toward their partner. They also responded to one question about what kind of support they wanted from their partner (i.e., emotional vs. practical support) and another question about what kind of support they gave to their partner (i.e., emotional vs. practical support), several questions about the characteristics of their relationship with their partner (i.e., relationship type, length, familiarity, satisfaction, and closeness), and demographic questions. When the questions referred to the partner, we provided blank spaces and asked participants to fill in the blanks with the

initials of the person who completed the survey with them. Measures not germane to the present investigation were also included.

**Compassionate goals.** Compassionate goals were assessed with a modified measure from Crocker and Canevello (2008). Items began with the phrase, “Today, in your relationship with [INITIALS], how much do you want to or try to.” Participants completed 7 items that were rated on a 1 (*not at all*) to 5 (*extremely*) scale (e.g., “Avoid doing anything that would be harmful to him/her,” and “Have compassion for his/her mistakes and weaknesses.”). These ratings were averaged to create a composite score ( $\alpha = .76$ ,  $M = 4.05$ ,  $SD = .61$ ).

**Matching support provision.** We measured matching support provision with two questions: “In general, in your relationship with [INITIALS], when you are upset, what kind of support do you want from [INITIALS]?” and “In general, in your relationship with [INITIALS], when [INITIALS] is upset and you give him/her support, what kind of support do you give?” Participants chose either “Emotional (e.g., trying to understand and feel your pain)” or “Practical (e.g., helping you find solutions).” Matching support was operationalized as giving the type of support their partner wanted, and scored as 1 (participant gave matching support) or 0 (participant gave non-matching support). Most participants gave matching support (69.5%).

**Covariates.** Because relationship quality may influence support provision (e.g., support quality), we included three questions to measure relationship quality (i.e., familiarity, satisfaction, and closeness). We measured familiarity by asking “How well do you know the person who is completing this survey with you?” on a 1 (*not at all*) to 5 (*extremely well*) scale ( $M = 3.96$ ,  $SD = .88$ ). We measured relationship satisfaction and closeness with two items. The items began with the phrase, “Today, in your relationship with [INITIALS],” and were rated on a 1 (*not at all*) to 5 (*very much*) scale. Satisfaction was assessed with “How satisfied are you with

your relationship with [INITIALS]?" ( $M = 4.42, SD = .78$ ). Closeness was assessed with "How close do you feel to [INITIALS]?" ( $M = 3.86, SD = .98$ ). Finally, as in the previous studies, we assessed self-image goals with a modified 9-item measure (Crocker & Canevello, 2008;  $\alpha = .86, M = 3.07, SD = .76$ ) using a scale ranging from 1 (*not at all*) to 5 (*Extremely*).

## Results and Discussion

In the data, individuals were nested within dyads, and the dyads were indistinguishable. Accordingly, we structured the data so that each dyad was represented by two lines of data, allowing each person within a dyad to represent both a provider and a recipient. We excluded one dyad from data analyses because this dyad reported that they had known each other for no more than 2 weeks. Including this pair of participants in the analyses did not substantively change the results. Table 3 shows the zero-order correlations for all continuous variables. The correlations were calculated using the method described by Griffin and Gonzalez (1995) for indistinguishable dyads.

We tested our hypothesis by examining whether providers' compassionate goals predict giving matching support to recipients. Because the outcome is a binary variable, we used generalized estimating equations (GEE) in SPSS to account for the nonindependence in the dyadic data (Loeys, Cook, De Smet, Wietzker, & Buysse, 2014). We report estimates for the unstandardized effects ( $b$ ), 95% Wald CIs for the unstandardized effects, odds ratios (OR), and  $p$  values.

First, we regressed providers' matching support provision on their compassionate goals. Consistent with our hypothesis, providers' compassionate goals predicted higher likelihood of providing matching support to their partner ( $b = .63, 95\% \text{ Wald CI} = [.08, 1.18], \text{OR} = 1.87, p =$

.026)<sup>2</sup>. The results indicated that a one-unit increase in providers' compassionate goals increased the odds of providing matching support to their partner by 87%.

We then tested whether providers' compassionate goals predicted matching support provision after controlling for their reports of familiarity, satisfaction, closeness, and self-image goals in the relationship with their partner. We regressed providers' matching support provision on their compassionate goals in four separate analyses, each controlling for a separate covariate. The association between compassionate goals and matching support provision remained significant in three analyses (controlling for satisfaction:  $b = .59$ , 95% Wald CI = [.03, 1.15], OR = 1.80,  $p = .041$ ; controlling for closeness:  $b = .59$ , 95% Wald CI = [.02, 1.16], OR = 1.81,  $p = .044$ ; controlling for self-image goals:  $b = .68$ , 95% Wald CI = [.06, 1.29], OR = 1.97,  $p = .031$ ), and became marginally significant ( $b = .56$ , 95% Wald CI = [-.003, 1.12], OR = 1.74,  $p = .051$ ) after controlling for familiarity. In these four analyses, only providers' reports of familiarity marginally predicted matching support provision ( $b = .35$ , 95% Wald CI = [-.03, 0.72], OR = 1.42,  $p = .069$ ) after controlling for compassionate goals; none of the other covariates predicted matching support provision ( $ps > .250$ ) after controlling for compassionate goals. When we regressed providers' matching support provision on their compassionate goals after controlling for four covariates simultaneously, the association between compassionate goals and matching support provision was marginally significant ( $b = .59$ , 95% Wald CI = [-.07, 1.24], OR = 1.80,  $p = .080$ ). In this analysis, none of the covariates explained unique variance in matching support provision ( $ps > .10$ ).

In sum, consistent with our hypothesis, providers' compassionate goals predicted matching support provision to their partner. Furthermore, providers' reports of familiarity,

satisfaction, closeness, and self-image goals in their relationship did not account for the association between compassionate goals and matching support provision.

### **General Discussion**

The present research examined whether and how compassionate goals predict providing support that addresses recipients' needs. Because people with compassionate goals are motivated to promote others' well-being, we hypothesized that support providers' compassionate goals predict matching support provision. Results of three studies conducted in a controlled setting employing hypothetical scenarios indicated that compassionate goals are associated with greater intention to give matching support. Extending these findings, Study 3 provided initial evidence that compassionate goals may help identify and give matching support through perspective taking. Finally, testing our hypothesis in real-world support exchange contexts, compassionate goals predicted giving matching support among dyad friends (Study 4).

Our findings converge with a growing body of research that focuses on the role of motivation in support provision, caregiving, and prosocial behavior (Crocker & Canevello, 2008; Feeney & Collins, 2003; Impett, Javam, Le, Asyabi-Eshghi, & Kogan, 2013; Konrath, Fuhrel-Forbis, Lou, & Brown, 2012). Consistent with the perspective that "otherish" motivation often leads to positive interpersonal outcomes (Crocker et al., 2017), people with compassionate goals had greater intention to give matching support and were more likely to give matching support. Moreover, while prior work has shown that people with compassionate goals provide support that is perceived by recipients to be more supportive (Crocker & Canevello, 2008), our findings suggest that this association is not due merely to the quantity of support given, but specifically to the tendency of people with compassionate goals to give support that matches recipients' needs.

Interestingly, in contrast to compassionate goals, self-image goals did not predict greater intention to provide matching support over non-matching support. In fact, in Study 3 self-image goals marginally predicted intention to give more non-matching support over matching support. Further, while compassionate goals were positively correlated with perspective taking, self-image goals were not. Although examining the role of self-image goals is beyond the scope of this paper, we speculate that those who are driven to *appear* (vs. *being*) supportive, for example, may not always focus on addressing recipients' needs effectively.

The present research contributes to a broader discussion in the social support literature about whether enacted support is beneficial and how to make enacted support more beneficial for recipients (e.g., Gleason et al., 2008; Lee et al., 2020; Rafaeli & Gleason, 2009; Zee et al., 2020). A growing body of research has demonstrated that receiving support can be either unrelated to positive outcomes or linked to negative outcomes (e.g., Bolger & Amarel, 2007; Kaul & Lakey, 2003). Given that successful support provision must be tailored to fit the needs of the recipient (Cutrona, 1990; Cutrona & Russell, 1990), we suggest that providing matching support (vs. other types of support) should be critical in determining support outcomes (Cavallo et al., 2016). Moreover, we build on this perspective by highlighting the importance of prosocial motivation in facilitating matching support identification and provision.

In addition to compassionate goals, other types of prosocial motivations, dispositions, or processes are likely to facilitate matching support provision (see Feeney & Collins, 2003). For example, studies show that people who are motivated to establish a communal relationship with others pay more attention to others' needs (Clark, Mills, & Corcoran, 1989; Clark, Mills, & Powell, 1986). Similarly, emotions such as empathy are closely related to perspective taking and can lead to responsive caregiving (e.g., Trobst et al., 1994). Future research could test additional

predictors of matching support provision (e.g., Cavallo et al., 2016), and how their processes may be similar to or different from those of compassionate goals.

The current research focused on the role of perspective taking as a potential mechanism underlying the link between compassionate goals and matching support provision. However, studies suggest that merely knowing about recipients' needs or simply being motivated to provide support does not necessarily lead to matching support provision. For instance, while people generally understand that low self-esteem individuals may not benefit from receiving emotional support that focuses on finding the positives in stressful situations, they tend to offer that support anyway (Marigold et al., 2019). Similarly, newlyweds (who presumably are highly motivated to support each other) often fail to tailor their support efforts to their partners' needs (see Brock & Lawrence, 2009, 2014; Lorenzo, Barry, & Khalifian, 2018). Thus, more research is necessary to understand additional pathways through which compassionate goals facilitate matching support provision.

One potential mechanism may involve the process of perspective getting (i.e., getting another person's perspective directly through conversation). Recent work has shown that perspective getting is not only effective in learning about others but may be more effective than perspective taking (Eyal et al., 2018). Although the present research did not measure perspective getting, an interesting future direction is to examine whether people with compassionate goals engage in more perspective getting. From our view, it is plausible that compassionate goals facilitate perspective getting through various mechanisms such as listening, frequent support interactions and self-disclosure, seeking feedback, etc.

Future research could also examine additional ways in which motivations can influence support provision. For example, if people with self-image goals approach support provision



contexts with the goal of appearing (rather than *being*) supportive, they may provide visible support that *demonstrates* to the recipient that they are “caring” or avoid providing negative feedback when it is necessary. In contrast, people with compassionate goals may be more likely to provide invisible support that buffers recipients from feeling burdensome or indebted or even provide constructive and negative feedback when it is necessary (e.g., an advisor’s feedback on student’s first draft). Moreover, some support provision may require persistence on the part of providers. For example, recipients may not immediately show gratitude for receiving support or at times may communicate to providers that their support was not effective. Would people with compassionate goals be more persistent in their support provision? Are they more likely to modify their support provision to fit recipients’ needs in the face of negative feedback from recipients or do they withdraw their support?

The correlational design of the current studies does not allow us to draw strong causal inferences or completely rule out the possibility of alternative explanations. Thus, future studies could collect experimental evidence, for example, by experimentally manipulating compassionate goals. Further, while we sought to control for a variety of covariates (e.g., self-image goals, regulatory mode, social desirability, relationship satisfaction, familiarity, closeness), future research could include additional controls to help rule out the possibility of alternative interpretations. Moreover, building on the self-report findings of the current research, future research should seek to examine how matching support provisions unfold in the laboratory (e.g., recording and analyzing support behaviors). Additionally, future research may examine whether providers’ compassionate goals actually lead to better support outcomes (e.g., recipients’ improved mood, goal-pursuit, etc.).

Finally, it is worth noting that the present research focused on the association between compassionate goals and matching support provision in platonic relationships. Although the role of compassionate goals in support provision should be similar across different types of relationships (e.g., platonic vs. romantic relationships), the different types of relationships may introduce other dynamics that can influence support provision. For example, close others (through repeated disclosure and prior support interactions) may have more knowledge about the recipients' needs. Thus, the observed effect may be stronger among romantic partners (vs. acquaintances). However, mis-calibrated support efforts and unsolicited advice often exist in close relationships (Brock & Lawrence, 2009, 2014; Feng & Magen, 2016), especially if provider and recipient disagree on what is best for the recipient (e.g., parents and child disagree on how much smartphone use is allowed on weekdays). Thus, future research could examine whether our findings hold across different types of relationships.

### **Conclusion**

Successful support provision requires support providers to identify support recipients' needs and provide support accordingly. The present research suggests that the goal to promote others' well-being fosters identification and provision of support that matches recipients' needs, and sheds light on the processes underlying successful support provision.

## Footnotes

<sup>1</sup> Cavallo et al (2016)'s original finding, in which assessment orientation predicted greater intention to give matching support over non-matching support was not observed in Study 2.

<sup>2</sup> When we included the excluded dyad in the analyses, the association between compassionate goals and matching support provision remained significant ( $b = .56$ , 95% Wald CI = [.01, 1.11], OR = 1.75,  $p = .047$ ).

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## Appendix

Modified Support Scenarios in Study 1 (adapted from Cavallo, Zee, & Higgins, 2016). Matching support is indicated in bold. Orders of scenarios and support strategies were randomized.

1. *"I am hosting a party tomorrow. I know that many people are planning to attend, including my sister who is traveling in from out of town to be at the party. Anyway, I just found out that I have to work later than expected tomorrow. I am really anxious that I won't have time to get to the train station on time to pick up my sister and also pick up supplies for the party by the time guests arrive."*

Support strategies: **Pick up the sister and the supplies for the party yourself**, provide emotional support, boost confidence in their ability to solve the problem, try to be a good listener, advise on how to manage this situation, give information necessary to understand what the real problem is.

2. *"I have been stressed out because of work lately. In times like these, I would like to visit my aging parents, but I can't because I live far away from them and I can't afford to take the time off...I have to wait several months before I can visit them. I really miss my family and am upset about my situation!"*

Support strategies: **Provide emotional support**, boost confidence in their ability to solve the problem, just listen to them and not say much, fix the problem yourself, advise on how to manage this situation, give information necessary to understand what the real problem is.

3. *"My romantic partner's birthday is coming up, and I want to get him/her a gift that he/she will love...but I am having a hard time coming up with the perfect gift for him/her..."*

Support strategies: **Give information necessary to buy the gift**, provide emotional support, boost confidence in their ability to solve the problem, try to be a good listener, buy the gift yourself, advise on how to manage this situation.

4. *"I am struggling to assemble a desk I just bought from IKEA. Normally, I'm handy with tools, but today I seem to have difficulty carrying out the instructions..."*

Support strategies: **Guide them through the instructions**, provide emotional support, boost confidence in their ability to solve the problem, try to be a good listener, assemble the desk yourself, tell them why they are having difficulty carrying out the instructions.

5. *"Lately, I have been having some problems with my romantic partner...we have been fighting more recently, and I feel like we are becoming more distant from each other. I am not sure why these things are happening..."*

Support strategies: **Try to be a good listener and help them understand the problem**, provide emotional support, boost confidence in their ability to solve the problem, try to fix their problem,

give advice on how to better manage the situation, tell them why they are having this problem.

6. *“I was recently offered my dream job. The company that is hoping to hire me is known for compensating their employees well, but is also known for having high expectations. Although my boss-to-be is confident that I am well-qualified for the position and can succeed if I work hard, I am having doubts about being able to meet the expectations of the company...I wonder if I should turn down the offer...”*

Support strategies: **Boost confidence in their ability to succeed in the company**, try to console and validate their feelings, try to be a good listener, try to fix their problem, help them manage the problem, give them information they need to understand and reflect on the problem.

Table 1. *Zero-order correlations for all variables in Study 2*

Variables	1	2	3	4	5	6
1. Compassionate goals	--					
2. Self-image goals	.09	--				
3. Assessment orientation	-.01	.47***	--			
4. Locomotion orientation	.53***	.13	-.06	--		
5. Matching support	.67***	.11	.02	.48***	--	
6. Non-matching support	.33***	.18*	.05	.35***	.63***	--

Notes. \*  $p \leq .05$ . \*\*  $p \leq .01$ . \*\*\*  $p \leq .001$ .

Table 2. *Zero-order correlations for all variables in Study 3*

Variables	1	2	3	4	5
1. Compassionate goals	--				
2. Self-image goals	.24**	--			
3. Perspective taking	.62***	.02	--		
4. Matching support	.70***	.31***	.70***	--	
5. Non-matching support	.52***	.36***	.51***	.75***	--

*Notes.* \*  $p \leq .05$  \*\*  $p \leq .01$  \*\*\*  $p \leq .001$ .

Table 3. Zero-order correlations for all continuous variables in Study 4

Variables	1	2	3	4	5
1. Compassionate goals	.22*	.25***	.12	.18*	.28***
2. Self-image goals	.43***	.42***	-.13	.09	.01
3. Familiarity	.18*	-.12	.72***	.33***	.57***
4. Satisfaction	.28***	-.02	.38***	.34***	.38***
5. Closeness	.30***	-.02	.68***	.61***	.54***

*Notes.* Values on and above the diagonal represent within-dyad (i.e., Actor-Partner) correlations; values below the diagonal represent within-personal correlations.

\* $p \leq .05$  \*\*\* $p \leq .001$ .

## Figure Caption

*Figure 1.* Intentions to give matching and non-matching support as a function of compassionate goals in Study 2. CG = Compassionate Goals.

*Figure 2.* Intentions to give matching and non-matching support as a function of compassionate goals in Study 3. CG = Compassionate Goals.

*Figure 3.* Mediation model in which compassionate goals predict matching support provision through perspective taking in Study 3. The path coefficients are standardized betas. Value in parentheses indicates the effect of compassionate goals on the dependent variable after controlling for non-matching support provision and the mediator.

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

Figure 1.

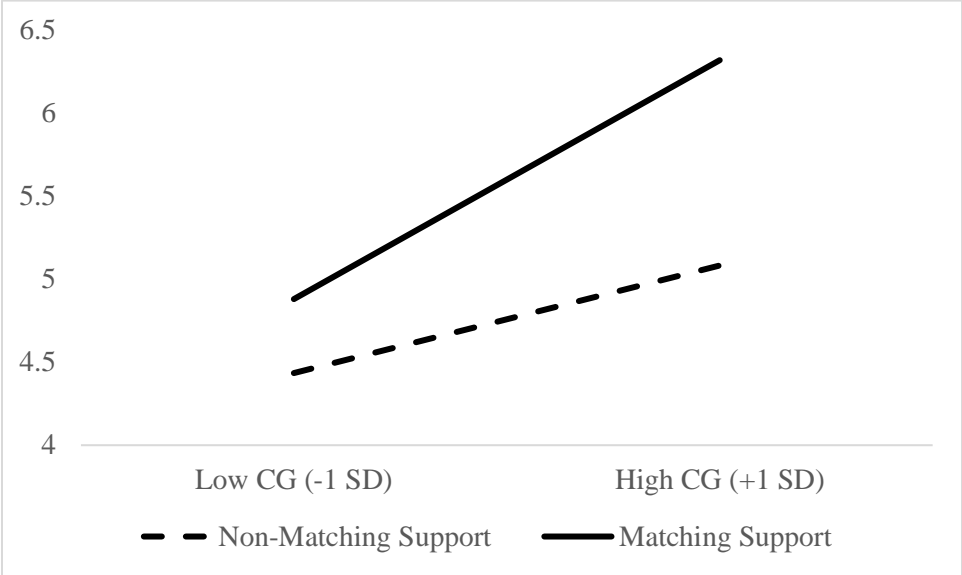




Figure 2.

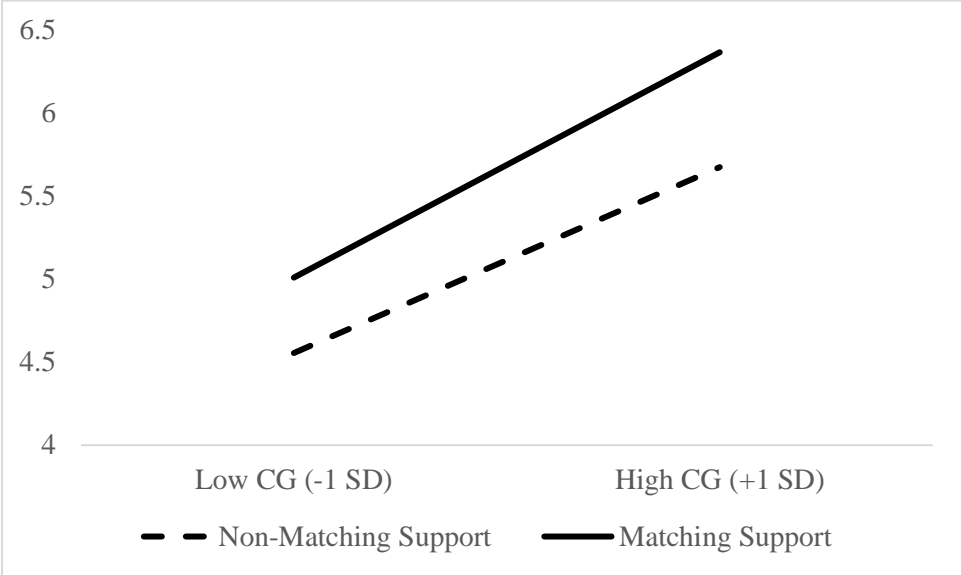


Figure 3.

