

The Role of Self-Compassion in College Students' Perceived Social Support

Kelly Lavin 

Marcie C. Goeke-Morey 

Kathryn A. Degnan 

The Catholic University of America,
Washington

Abstract

Can undergraduate students' self-compassion, or their relationship with themselves, positively influence the degree to which they feel supported by their friends? Filling a gap in the understanding of social cognitive processes in the field of positive psychology, this study investigated social information processing theory (SIP) as a possible explanation for relations between students' self-compassion and perceived social support from friends. Results from an online survey with 119 undergraduate students revealed that individuals with greater self-compassion tended to make fewer hostile and instrumental attributions and reported greater social support from friends. Individuals who endorsed more instrumental attributions and fewer hostile attributions were less likely to respond aggressively and more likely to respond in socially appropriate ways, which, in turn, was related to greater perceived support from friends.

Keywords: College students, first-year students, social information processing, self-compassion, perceived social support, friendships

Introduction

Research has demonstrated the positive role perceived social support can play in helping students adjust to college and combat the negative effects of stress (Friedlander, Reid, Shupak, & Cribbie, 2007; Rayle & Chung, 2007). Given the substantial body of research emphasizing the positive role social support plays in individuals' psychological well-being (Chu, Saucier, & Hafner, 2010; Taylor, 2011; Zimet, Dahlem, Zimet, & Farley, 1988), it is important to understand factors that may contribute to greater perceptions of social support (Brodar, Crosskey, & Thompson, 2015; Crocker & Canevello, 2008). Self-compassion may be one such factor. A number of recent studies find that self-compassion is associated with psychological well-being (Bluth, et al., 2016; Breines et al., 2015; Brodar et al., 2015; Crocker & Canevello, 2008; Neff, 2003; Neff & Beretvas, 2013; Neff & McGehee, 2010; Yarnell & Neff, 2013) as well as interpersonal outcomes such as social support (Brodar et al., 2015; Crocker & Canevello, 2008).

Currently, the field is lacking an understanding of how self-compassionate individuals think and behave in their

social interactions. Identifying the social and cognitive processes that lead self-compassionate individuals to have greater perceived social support may inform theory and highlight pathways to support individuals' psychosocial well-being. The application of a social information-processing (SIP) model (Crick & Dodge, 1994) to examinations of social interactions has helped to identify social cognitive mechanisms that underlie individuals' aggressive behavior (Coccaro, Fanning, & Lee, 2017; Crick & Dodge, 1996; Fontaine, Yang, Dodge, Bates, & Pettit, 2008), and may be a reasonable process-oriented explanation for the relations between self-compassion and perceived social support. For example, it may be that individuals with higher levels of self-compassion are more likely to give others the benefit of the doubt or think they are acting in their own self-interest rather than being intentionally hurtful, leading individuals to engage in more prosocial behaviors and in turn feel greater support from their peers.

Self-Compassion

Self-compassion is linked to social support (Brodar et al., 2015), greater relationship quality (Neff & Beretvas,

2013; Neff & McGehee, 2010), and psychological outcomes such as decreased stress (Bluth, et al., 2016; Breines et al., 2015; Neff & McGehee, 2010). Being kind to oneself, accepting one's own hardships and struggles, and believing that one deserves to receive kindness and support are at the core of self-compassion and may better enable individuals to be open to social support and interpersonal relationships (Brodar et al., 2015; Neff, 2003). Furthermore, these characteristics are associated with more secure attachment styles and may allow individuals to be more understanding and considerate of others (Neff, 2003; Neff & Beretvas, 2013; Neff & McGehee, 2010; Neff & Pommier, 2013; Yarnell & Neff, 2013), making them more appealing social partners and improving the quality of their interpersonal relationships. Indeed, research also shows that greater self-compassion is associated with decreased stress response, stronger self-concept, and greater well-being, as well as increased feelings of being worthy of forgiveness (Bluth et al., 2016; Breines et al., 2015; Brodar et al., 2015; Neff, 2003; Neff & McGehee, 2010). Given that self-compassion improves the way individuals treat themselves, the way they treat others, their sense of security in their interpersonal relationships, and their ability to regulate stress, individuals with greater self-compassion may have more positive interpretations of others' intentions and use their positive self-concept to advocate for themselves and respond to others in more interpersonally adaptive ways.

The studies reviewed here highlight associations between self-compassion and perceived social support; however, little is known about the social cognitive mechanisms that may help explain these relationships. Social Information Processing theory provides a promising framework for investigation.

Social Information Processing (SIP)

Social cognitive models have been useful in explaining social relationships (Crick & Dodge, 1994; Crick & Dodge, 1996). Crick and Dodge (1994) articulated a social information-processing (SIP) model that outlined six steps to explain the cognitive processes children engage in during social interactions with others. When children attend to social cues, they make attributions, think of their goals for the social interaction, generate and evaluate possible responses, and act (Crick & Dodge, 1994). Scholars have reformulated Crick and Dodge's model to include additional processes within the response evaluation and decision making (RED) step (Fontaine & Dodge, 2006), an emotionality component to the step regarding social goals (Lemerise & Arsenio, 2000), and a model assessment for adult populations

(Coccaro, Noblett, & McCloskey, 2009; Coccaro et al., 2017). These modifications aimed to provide a more comprehensive understanding of how individuals interpret their social information and why they engage in various behaviors (Coccaro et al., 2017; Coccaro et al., 2009; Fontaine & Dodge, 2006; Lemerise & Arsenio, 2000).

In response to socially ambiguous situations, individuals are thought to form attributions about other peoples' behavior and think about ways they might respond before reacting to the situation (Coccaro et al., 2017). For example, one may make a hostile attribution, interpreting another's intention as deliberately hurtful (Coccaro et al.). Alternatively, one may form an instrumental attribution that judges the other's behavior as serving their own self-interest, or a benign attribution that assumes the other meant no harm (Coccaro et al.). Individuals with greater positive traits, such as self-compassion, may be more likely to interpret the behavior of others in one of these benign or instrumental ways rather than as being intentionally harmful, which may serve to protect the individual and social relationship from harm.

Whether individuals act in socially appropriate (e.g. pro-social or assertive behavior), relationally aggressive (e.g. passive aggressive behavior), or overtly aggressive (e.g. verbally aggressive behavior) ways may depend in part on the attributions made for the other's behavior (Coccaro et al., 2017). Aggressive individuals tend to make more hostile attributions about others' intentions, have greater negative emotional reactions, formulate goals that are self-serving, view aggressive responses more positively, and engage in more aggressive responses, which leads to future antisocial behavior (Crick & Dodge, 1996; Coccaro et al., 2017; Coccaro et al., 2009; Fontaine & Dodge, 2006; Fontaine et al., 2008). Expanding beyond the literature focusing on the social cognitive processes that lead to aggressive behaviors (Crick & Dodge, 1996; Coccaro et al., 2017; Coccaro et al., 2009; Fontaine & Dodge, 2006; Fontaine et al., 2008), more research is needed to understand the attributions prosocial individuals make in ambiguous situations, and the processes that explain the ways benign and instrumental attributions may influence positive behaviors. In addition, research has yet to explore how SIP may highlight underlying mechanisms of positive social outcomes such as perceived social support. For instance, individuals with higher self-compassion may interpret the intentions of others' behaviors as more benign or instrumental and less hostile. These attributions may impact the way individuals formulate

personal and social goals and lead them to respond in ways that may be more adaptive for the preservation of their relationships, such as stating their expectations in the relationship or pardoning and excusing the offense. In turn, these responses may serve to maintain or even enhance relationships.

The Present Study

Individuals with greater self-compassion are able to better regulate their physiological response to stress (Bluth et al., 2016; Breines et al., 2015), are more understanding of their own and others' faults (Neff, 2003), respond in more effective ways to resolve conflict (Yarnell & Neff, 2013), and rate higher relationship quality and perceived social support from others (Brodar et al., 2015; Crocker & Canevello, 2008; Neff & Beretvas, 2013; Neff & McGehee, 2010; Yarnell & Neff, 2013). However, the mechanisms of the relationships between self-compassion and perceived social support have not been studied. It is important to understand how these constructs relate in order to promote the well-being of emerging adults, especially those who may be vulnerable to stressful and ambiguous social situations.

This study investigates the relationship between self-compassion and perceived social support in college students through the context of a social information-processing model. Although measured concurrently, attributions of and responses to ambiguous situations are proposed to mediate the relationship between self-compassion and social support. That is, self-compassion is expected to lead to fewer hostile attributions and more benign and instrumental attributions. In line with previous research from Coccaro and colleagues (2017), hostile attributions are expected to contribute to more aggressive responses and fewer socially appropriate and pardoned responses, whereas benign and instrumental attributions are predicted to influence more socially appropriate and pardoned responses and fewer aggressive responses. Finally, socially appropriate and pardoned responses are expected to enhance perceived social support from friends, whereas aggressive responses are expected to hamper support.

Method

Participants

Data was collected from 119 undergraduate students at a private university in the Mid-Atlantic region of the United States, enrolled in an introductory psychology course. Prior to analyses, data were reviewed to identify invalid entry cases (i.e. illogical responses, excessively short or long time completion), which resulted in two cases being removed from the analysis. Four additional

participants provided partial information but were excluded from the analysis due to missing data on the exogenous variable. The majority of participants identified as white/European American (66%), with the remaining identifying as Asian (8%), African American/Black (3%), Hispanic/Latino (16%), biracial (7%), and other (1%). Participants (79% female) ranged in age from 18 to 25 years ($M = 18.8$, $SD = 1.2$; 71% were freshmen, 19% sophomores, 6% juniors, and 5% seniors).

Procedure

Using an anonymous online survey, participants completed several self-report measures assessing their affect, daily practices, and social interactions

Measures

The subset of measures included in the current analyses are described below.

Social Information Processing. Social information processing was assessed using an adaptation of the Social Emotional Information Processing Assessment for Adults (SEIP-Q; Coccaro et al., 2017). Participants were given four vignettes of various ambiguous, relationally aggressive situations in which participants were asked to imagine himself or herself in a situation where a peer shares the participants' private information, cancels scheduled plans with the participant and spends time with someone else, denies the participants' request for them to sit with them, and where a group of peers ignores the participant in a social setting. For each scenario, participants rated the extent to which they endorsed each of three attributions: hostile (i.e. the person meant to intentionally harm or hurt them), benign (i.e. the person did not mean to harm or hurt them), instrumental (i.e. the person is serving their own self-interest) on a 4-point scale. Each attribution type was summed across the four scenarios to create a total score for each attribution type. In addition, participants were provided with four response scenarios for each story: socially appropriate (i.e. pro-social or assertive behaviors), relationally aggressive (i.e. passive aggressive behaviors), overtly aggressive (i.e. verbally aggressive behavior), or pardoned. The "pardoned response", not part of the original measure, was added in the current study to allow participants to choose the extent to which they would excuse the offense (i.e. "Decide to let the situation 'slide' and not do anything about it."). For each response, students were asked to rate on a 4-point scale their evaluation of the response, outcome expectation, efficacy in enacting the response, and likelihood of enacting the response, which were combined to form a single "RED" (response evaluation and decision making) score for each response. These combined scores were then averaged across the four

scenarios to create a total RED score for each response type (i.e. socially appropriate, overt aggression, relational aggression, pardoned). Due to the high correlation between the overt aggression and relational aggression RED types, $r = .60$, $p < .001$, the two scores were combined to create a total aggressive response. The SEIP-Q has demonstrated sufficient psychometric properties and convergent and divergent validity (Coccaro et al., 2009; 2017). In the current sample, the Cronbach's alphas for the hostile, benign, and instrumental attribution subscales were $\alpha = .80$, $\alpha = .54$, and $\alpha = .55$, respectively. In addition, the Cronbach's alphas for the aggressive, socially acceptable, and pardoned response types were $\alpha = .83$, $\alpha = .69$, and $\alpha = .74$, respectively.

Perceived Social Support from Friends. Perceived social support from friends was assessed using the friend subscale of the Multidimensional Scale of Perceived Social Support (MSPSS; Zimet et al., 1988). The subscale includes 4-items measuring individuals' perceived social support in regards to their friends on a 7-point scale ranging from 1 (*Very Strongly Disagree*) to 7 (*Very Strongly Agree*). An example of an item on the scale stated, "I can count on my friends when things go wrong". The scale demonstrated good psychometric properties including factorial validity, construct validity, and test-retest reliability (Zimet et al., 1988; Zimet, Powell, Farley, Werkman, & Berkoff, 1990). The Cronbach's alpha for the scale in the current sample was $\alpha = .94$.

Self-compassion. Self-compassion was assessed using the Self-Compassion Scale (SCS; Neff, 2003). The scale includes 26-items measuring self-kindness, self-judgment, common humanity, isolation, mindfulness, and over-identified on a 5-point scale ranging from 1

(*Almost never*) to 5 (*Almost always*). An example of an item on the scale states, "I try to be loving towards myself when I'm feeling emotional pain". The psychometric results of the scale have revealed sufficient validity (Neff, 2003; Neff, 2016). The Cronbach's alpha in the current sample, $\alpha = .82$.

Data Analysis Plan

Data were analyzed using structural equation modeling with Mplus version 8.4 (Muthén & Muthén, 2019). Mplus allows for missing data on all dependent variables and the use of a restricted maximum likelihood (MLR) estimation, which is robust to violations of the assumption of normality when missingness is assumed to occur at random (Enders, 2001; Peters, & Enders, 2002). Concurrent paths in the model were drawn from self-compassion to the three attribution types (i.e., hostile, benign, and instrumental). Subsequent paths were drawn from each attribution type to each RED type (i.e., socially appropriate responses, aggressive responses, and pardoned responses), and from each RED type to perceived social support from friends. A direct path from self-compassion to perceived social support from friends was included. Lastly, hostile and instrumental attributions were allowed to covary as correlations revealed a high positive relationship between those response types.

Results

Descriptive statistics tables regarding the correlations between the variables can be found in Table 1. As noted above, hostile and instrumental attributions were significantly correlated, $r = .37$ $p = .000$. However, none of the other attributions were significantly correlated with each other and none of the RED types were significantly correlated with each other, all $ps > .10$.

Table 1. Means and correlations among the study variables

	N	M(SD)	1	2	3	4	5	6	7	8	9
1 Hostile Attributions	114	.94(.52)									
2 Benign Attributions	118	1.56(.55)	-.16								
3 Instrumental Attributions	118	2.06(.50)	.37***	.13							
4 Socially Appropriate Response	110	1.81(.25)	-.25**	.18	.03						
5 Overtly Aggressive Response	114	.82(.24)	.25**	.03	-.20*	-.16					
6 Relationally Aggressive Response	107	1.00(.28)	.21*	.05	-.06	-.05	.60***				
7 Pardoned Response	113	1.33(.29)	.00	.21*	.04	.10	.05	.04			
8 Total Aggressive Response	103	.92(.23)	.27**	.06	-.15	-.09	.88***	.91***	.08		
9 Self-Compassion	119	2.94(.56)	-.22*	-.08	-.24**	.10	.03	-.02	-.05	.04	
10 Perceived Social Support from Friends	118	5.80(1.12)	-.36***	.08	-.08	.21*	-.18	-.20*	-.08	-.21*	.22*

Note. $p \leq .05$ *, $p \leq .01$ **, $p \leq .001$ ***, ns = not significant.

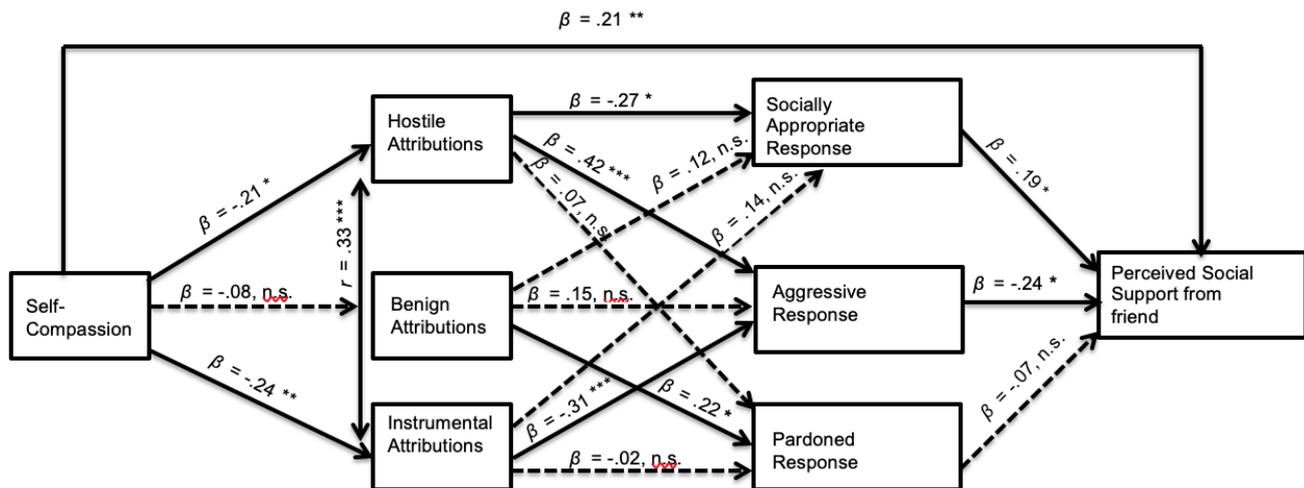


Figure 1. Structural equation model for self-compassion
Note. $p < .05^*$, $p < .01^{**}$, $p < .001^{***}$, *ns* = not significant.

Using restricted maximum likelihood (MLR) estimation, the model resulted in a reasonable fit to the data, $\chi^2(11, N = 119) = 15.00$, $p = .183$, RMSEA = .06 (90% CI [.00, .12]), CFI = .94, TLI = .83, SRMR = .06. The standardized findings from the overall structural equation model revealed that self-compassion, the attributions (hostile, benign, and instrumental), and the response evaluation and decision types (RED; socially appropriate, total aggression, and pardoned response) together explained a significant amount of variance in perceived social support from friends, $R^2 = .16$, $p < .05$ (See Figure 1). Furthermore, with attributions and RED types in the model, a significant direct effect remained between self-compassion and perceived social support from friends, $\beta = .21$, $p < .05$.

Paths from self-compassion to attributions showed that greater self-compassion predicted fewer hostile attributions, $\beta = -.21$, $p < .05$, and fewer instrumental attributions, $\beta = -.24$, $p < .05$, but did not predict benign attributions, $\beta = -.08$, $p = .319$.

Paths from attributions to RED types showed that greater hostile attributions predicted fewer socially appropriate responses, $\beta = -.27$, $p < .05$, and more aggressive responses, $\beta = .42$, $p < .001$, but did not predict pardoned responses, $\beta = .07$, $p = .539$. Benign attributions did not predict socially appropriate responses, $\beta = .12$, $p = .276$, or aggressive responses, $\beta = .15$, $p = .078$, however, greater benign attributions marginally predicted more pardoned responses, $\beta = .22$, $p = .052$. Greater instrumental attributions predicted fewer aggressive responses, $\beta = -.31$, $p < .001$, but did not predict socially appropriate responses, $\beta = .14$, $p = .234$, or pardoned responses, $\beta = -.02$, $p = .863$.

Paths from RED types showed that greater perceived social support from friends was predicted by more

socially appropriate responses, $\beta = .19$, $p < .05$, and fewer aggressive responses, $\beta = -.24$, $p < .05$. Pardoned responses were not related to perceived social support from friends, $\beta = -.07$, $p = .500$.

The model also demonstrated several significant indirect effects. Instrumental attributions had a significant total indirect effect on perceived social support from friends, $\beta = .10$, $p = .014$. Specifically, the indirect path from instrumental attributions to perceived social support from friends through aggressive responses was marginally significant, $\beta = .07$, $p = .053$. The same was true for hostile attributions, such that there was a significant total indirect effect on perceived social support from friends, $\beta = -.16$, $p = .004$. Specifically, the indirect path from hostile attributions to perceived social support from friends through aggressive responses was significant, $\beta = -.10$, $p = .047$. No significant indirect effect was found from benign attributions to perceived social support from friends, $\beta = -.03$, $p = .395$. Further, there was not a significant indirect effect from self-compassion to perceived social support from friends through attributions and RED types, $\beta = .01$, $p = .477$.

Discussion

The purpose of this study was to investigate the extent to which college students' self-compassion is related to perceived social support from friends and whether these relations are mediated by attributions (i.e., hostile, benign, and instrumental) in combination with response evaluation and decision making types (i.e., socially appropriate, aggressive, and pardoned responses). The results support the positive relationship between self-compassion and perceived social support as well as the relation between self-compassion and attributions. In addition, the results highlight the role of hypothesized social cognitive mechanisms, such as response

evaluation and decision making types in the relationship between attributions and perceived social support.

We found partial support for the model that self-compassion influenced attributions, which impacted response evaluation and decision making types, which in turn influenced perceived social support. Two indirect mediation pathways were found linking instrumental and hostile attributions to perceived social support through aggressive responses. While the indirect pathways from self-compassion to social support did not reach the threshold for significance, these results do suggest that self-compassion has an influence on social cognitive processes in terms of attribution style. Students with higher self-compassion were less likely to make hostile attributions about others' intentions, and fewer hostile attributions made them more likely to endorse socially appropriate responses and experience more perceived support from their friends. The inverse relationships with hostile attributions is in line with previous research on aggressive traits being positively related to hostile attributions (Coccaro et al., 2017). The degree to which students are compassionate with themselves impacts the extent to which they perceive others' intentions towards them as hurtful or not. If students who are harsh or unkind to themselves believe it is more likely that others are also trying to hurt them, they may feel angrier and justify responding in more aggressive ways, which may lead to strained relationships and lower perceived social support from their friends. On the other hand, students with greater levels of self-compassion may believe they are worthy of respect in their relationships. Therefore, when these students are confronted with an ambiguous situation in which someone may have wronged them, they may feel more confident in addressing the situation in a respectful, socially appropriate manner while advocating for others to also treat them and their relationship with respect. This may influence more positive relationship functioning in the future and greater perceived social support from their friends.

Despite a positive relation between hostile and instrumental attributions, higher levels of self-compassion led to students' making fewer instrumental attributions. It may be that students who are kinder and more understanding to themselves expect to be treated with more dignity and respect and may not be less willing to attribute a self-serving explanation to another in an ambiguous situation. However, in line with our predictions, making fewer instrumental attributions was related to more aggressive responses, and subsequently less perceived social support from friends. These ambiguous situations may upset the student by feeling

disrespected, which may lead them to be upset and act more aggressively. Acting aggressively may further strain the relationship causing the student to feel less support in their peer relationships.

As expected, self-compassion was directly and positively related to perceived social support from friends. The social cognitive variables accounted for a significant amount of the variance in social support, but did not account for the relationship between self-compassion and perceived social support from friends, suggesting additional mechanisms may be at play. Because emotion plays a role in social information processing (Coccaro et al., 2017; Crick & Dodge, 1994; Lemerise & Arsenio, 2000), students' ability to regulate their emotions may further explain the relationship between self-compassion and perceived social support. Future longitudinal research should consider emotion regulation as well as other social information processes that may help to fully explain this relationship.

Several hypothesized pathways in the model related to benign and instrumental attributions were not significant. For example, it was predicted that students with greater self-compassion would be more likely to engage in benign attributions, suggesting that the other person did not mean any harm to them, but this effect was not significant. Notably, benign attributions predicted pardoned responses, but not socially appropriate responses. This suggests that students who interpret others in socially ambiguous situations to have meant no harm by their behaviors may forego anger, retribution, or further discussion, and choose instead to let the offense go without response (i.e., a pardoned response).

Also contrary to prediction, socially appropriate responses were not predicted by instrumental attributions. Perhaps students responding in socially appropriate ways to ambiguous situations may be making a different, more adaptive attribution that is positively associated with more pro-social responses. For example, perhaps students with higher self-compassion make attributions that accurately acknowledge the other person's wrongdoing, but recognize that it was a mistake that all people make as a part of the human condition (Neff, 2003). Additional research refining the measurement of benign and instrumental attributions and exploring possible alternative attributions that may lead to socially acceptable and prosocial responses, is warranted.

Furthermore, benign attributions were not significantly related to fewer aggressive responses, counter to the hypothesis. In line with the correlational

findings between the variables, benign and hostile attributions do not have a significant inverse relationship. This suggests that these variables may not be on the same continuum, which would be consistent with the finding that there is no significant positive relationship between benign attributions and socially appropriate or aggressive responses. Lastly, counter to hypotheses, pardoned responses (i.e., letting the situation go) were not related to perceived social support. Perhaps this is not an adaptive response for students to engage in if they want to increase their perception of support from friends.

Several limitations should be considered when interpreting results. First, the data is correlational, therefore the directions of effect in these pathways are unclear. It may be that social support is leading to greater compassion through distinct social information processing patterns. Future research should include longitudinal methods to better understand the directionality of these relationships. In addition, lower reliability estimates for benign and instrumental attributions may have contributed to the lack of statistical significance of some of the predicted pathways. Furthermore, the small sample size and small to medium effect sizes raise concerns about the statistical power in the model, which may account for some of the nonsignificant direct and indirect effects. For instance, despite the presence of a series of small direct effects linking self-compassion to perceived social support, none of the indirect pathways reached the threshold for significance. Another limitation to this study is the lack of control variables. Future research should consider adding control variables or moderators between pathways. Lastly, although the stories used in the social information processing vignettes were intended to be ambiguous, the situations could be considered to be incidents of betrayal, which could have impacted attributions in unintended ways. If these stories were more ambiguous the results of this study may have been more in line with the hypotheses.

Notwithstanding the limitations, this study breaks new ground in the examination of social information processing variables as mediators in the relationship between self-compassion and perceived social support from friends in emerging adulthood. Overall, the results of this study suggest that self-compassion is related to distinct patterns in positive social information processing. Furthermore, self-compassion seems to play an important role in students' perceived support from their friends, suggesting the potential value of larger experimental and/or longitudinal studies examining

social cognitive processes linking one's own self-compassion and their perceived social support.

Declaration of Conflicting Interests

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ORCID

Kelly Lavin  <https://orcid.org/0000-0003-2916-5928>

Marcie Goeke-Morey  <https://orcid.org/0000-0001-6116-5069>

Kathryn Degnan  <https://orcid.org/0000-0001-9860-3990>

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