SUPPORTING PEERS DURING ADOLESCENCE IS BENEFICIAL FOR MOST, BUT
COSTLY FOR SOME

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Abstract

Helping others is a meaningful part of life during the transition to young adulthood, when adolescents' social networks, social behaviors and daily responsibilities change. In the current study, we investigated daily associations between helping behaviors and positive and negative affect. First year college students ($N = 351$, 63.5% female, $M_{age} = 18.62$ years) completed diary checklists for eight days, reporting whether they provided instrumental and emotional support to a friend or roommate, as well as their positive and negative emotions. On days that adolescents provided instrumental or emotional support to a friend, but not roommate, they felt more positive emotions. However, providing instrumental support to a friend was associated with more negative emotions for males, and providing emotional support to a roommate was associated with more negative emotions for adolescents who were less empathetic. Although helping friends is largely beneficial, it may come at an emotional cost for males and less empathetic individuals.

Key words: Adolescence, friend, roommate, instrumental support, emotional support, empathy

Helping others is rooted deeply in human nature (Hepach, 2017), and can be immensely rewarding both in the moment and over time (Aknin et al., 2013; Brown et al., 2003; Dunn et al., 2008; Rand & Nowak, 2013). For example, when adolescents provide instrumental and emotional support to others, there is an opportunity to gain a sense of autonomy, identity and emotional closeness to others (Fuligni, 2018). Helping may be particularly meaningful during the transition away from the family home into college, when adolescents become increasingly capable of contributing in consequential ways, and their social networks expand as they begin to build new relationships with friends and roommates (Crocker & Canevello, 2008; Fuligni, 2018; Morelli et al., 2015, 2017). This important developmental transition represents a critical period for understanding how adolescents' provision of support to peers impacts well-being, as it may shed light on how helping behaviors promote or undermine emotional well-being and downstream social and academic success. In the present study, we use rich daily diary methods to examine whether providing instrumental and emotional support to friends and roommates during the first year of college is associated with positive or negative affect the same day.

Developmental Transitions and Helping

The transition out of the home and into college is a key period for understanding adolescents' provision of support to others, because this time is marked by substantial changes in adolescents' social networks and social behaviors (Fuligni, 2018). Feeling socially connected and capable of contributing is integral to adolescents' development as their existing support networks at home are disrupted and they shift towards increased independence from the family and interconnection with peers (Adams & Marshall, 1996; Fuligni, 2018). Surrounded by new peers on campus, adolescents begin to interact with new social agents (such as friends and roommates), many of whom may need support due to the difficulties of adjusting to unfamiliar

living and learning environments (Azmitia, Syed, & Radmacher, 2013; Krumrei-Mancuso, Newton, Kim, & Wilcox, 2013; Thurber & Walton, 2012). At the same time, the adolescent providing support is also experiencing a life transition which may represent a sensitive period for their own emotional risk. Since helping behaviors during adolescence carry the potential for both self-costs and benefits (Armstrong-Carter, Olson, & Telzer, 2019), it is crucial to investigate how providing support to peers during the first year of college impacts well-being.

Rewards and Costs of Helping

Despite the importance of understanding helping behaviors during the first year of college, this period has been understudied. Much of what we know about adolescents helping behaviors comes from literature examining younger adolescents' provision of support to the family (Fuligni & Pedersen, 2002, ; Telzer & Fuligni, 2009b), participation in formal volunteer work (Ballard et al., 2019; Lichter et al., 2002), or average levels of helping behaviors as assessed retrospectively by the individual or by peer nominations (e.g., Eisenberg et al., 2002; Wentzel, Filisetti, & Looney, 2007). This work broadly suggests that helping others is beneficial in that it confers a sense of social identity, connection to others, and personal fulfillment (Ballard et al., 2019; Eisenberg et al., 2002; Inagaki & Orehek, 2017; Telzer, Masten, Berkman, Lieberman, & Fuligni, 2010; Wentzel et al., 2007). Consistent with this notion, during the first year of college, one small sample of 54 friendship dyads suggested that on days that students emotionally supported one close friend, they tended to feel happier and less stressed, anxious and lonely (Morelli et al., 2015). At the same time, however, helping peers may not always be uniformly positive. Providing support during adolescence can be costly if it conflicts with other social and academic demands, or is stressful or emotionally draining (Armstrong-Carter, Olson, et al., 2019; Cohen et al., 2012; Fuligni et al., 2009).

Type of support

The extent to which helping peers is beneficial or costly may depend on the type of assistance provided (Tsai et al., 2016), since different helping behaviors may cause or contribute to very different emotions. Recent work has emphasized the importance of distinguishing between instrumental support (i.e., tangible assistance like lending a car) and emotional support (i.e., listening to or advising a peer). Emotional support involves adolescents' awareness and response to another person's challenges or worry (Hooper, Marotta, & Lanthier, 2008), and may impact adolescents' emotional state and behaviors in ways that are not apparent by their provision of instrumental support (Tsai et al., 2016, 2013). Consistent with this notion, providing emotional support to a close friend, but not instrumental support, was associated with greater well-being in a small sample of first year college students (Morelli et al., 2015). We need more research in larger samples to clarify whether the effects of helping peers during the first year of college depends on whether the help is instrumental assistance or emotional support.

Social Target of support

To elucidate the extent to which helping peers during the college transition is emotionally rewarding or taxing, we also need to capture multiple aspects of students' expanding social networks (Adams & Marshall, 1996; Morelli et al., 2015). During the first year of college, the impact of providing support may depend on whether the adolescent helps a friend or a roommate. Consistent with this idea, researchers have hypothesized that helping others may only be beneficial when the recipient is emotionally close (Brown et al., 2003), or shares a salient social identity (Adams & Marshall, 1996). Despite this theory, most prior research has examined adolescents' provision of support to a single individual or unit, such as one close friend, romantic partner, family, or charity (e.g., Crocker & Canevello, 2008; Morelli et al., 2015; Telzer &

Fuligni, 2009b). Little work has specifically compared the extent to which adolescents feel differently after helping a friend versus someone who is more proximal, such as a college roommate. On the one hand, adolescents may feel happier after helping a roommate if they feel more intimate due to cohabitation (Brown et al., 2003; Erb et al., 2014). On the other hand, adolescents may feel happier after helping a friend whom they have personally selected and enjoy, and may feel relatively more burdened helping a roommate who could have been randomly assigned to them (Erb et al., 2014). Directly comparing the effects of helping a friend versus helping a roommate during college may shed light on the social contexts in which helping behaviors during this sensitive period are beneficial versus burdensome.

Individual differences in gender and empathy

In addition to the target of support, there may be individual differences in the helpers' traits that influence whether support provision is experienced positively or negatively. For example, providing support may be more or less rewarding for girls compared to boys (Fuligni, 2018; Tsai et al., 2016). Due to gender norms, females may be expected to provide higher levels of instrumental and emotional support to peers compared to males (Rose & Asher, 2004, 2017) and so female adolescents may feel either greater burden due to the expectations, or greater satisfaction as the result of having fulfilled an expected role (Rose & Asher, 2004).

Similarly, the emotional effects of helping may also vary by the helper's level of emotional concern. One possibility is that feeling emotionally invested in helping others may increase emotional reward for the helper (Morelli et al., 2015). More empathetic individuals may experience more of a "warm glow" after providing support (Crocker & Canevello, 2008), while less empathetic individuals may experience providing support as more of a chore, inconvenience, or less emotionally satisfying. Supporting this notion, in a study of 65 roommate dyads during

the first year of college, adolescents who helped their roommate out of genuine compassion and concern felt less distressed compared those who were more self-oriented (Crocker & Canevello, 2008). More research is needed to understand how provision of support to both roommates and friends during adolescence influences daily variations in emotionality, and how these associations differ by sex and level of empathetic concern. This is important because it may help to illuminate behavioral and trait-level contributors to adolescents' emotional adjustment during the college transition, a period which sets the stage for well-being later in life (Zarrett & Eccles, 2006).

Daily diary method

The daily diary method is uniquely useful for examining questions related to adolescents' daily helping behaviors and emotions (Telzer & Fuligni, 2009). Youths' reports of their daily activities, behaviors, and feelings are more reliable and accurate than when these processes are assessed using traditional retrospective accounts from a single questionnaire (Bolger et al., 2003). Daily diary methods also allow researchers to examine whether specific behaviors and feeling co-occur on the same day. For example, on days that adolescents emotionally support a friend, are they more likely to feel more positive or negative emotions? While not causal, data of this nature allow us to examine associations within the same individual, thereby holding constant the extraneous traits and characteristics of the adolescent. Daily diary methods also enable us to examine interactions between multiple processes that occur across the trait level and daily level. For example, does the daily association between provision of support and emotions depend on the adolescents' sex, and how empathetic they tend to be? In light of the benefits of daily diaries, recent studies have emphasized the importance of examining helping behaviors and emotions at the daily level. For example, small samples (e.g., < 65) have independently linked helping

behaviors during the first year of college to fluctuations in daily emotions (Crocker & Canevello, 2008; Morelli et al., 2015), although help towards friends versus roommates have not been directly compared. Thus, examining these daily associations in a large sample can help to illuminate how the effects of helping may differ based on the type of help (emotional vs instrumental), target of support (roommate, close friend), as well as trait-level individual differences.

Current Study

In the current study, we used the daily diary method in a large sample of first year college students to examine whether daily provisions of support to friends and roommates were differentially related to emotional well-being the same day. To unpack the possibility that different types of helping behaviors differentially relate to emotions, we tested both instrumental support (i.e., tangible assistance such as lending a car) and emotional support (i.e., listening to or advising a peer). By distinguishing between support provided to friends vs roommates, we are able to discern whether the emotional impact of lending these two types of support differs as a function of the social role of the recipient. Moreover, to investigate individual differences, we tested whether these associations varied by adolescents' sex and trait level empathetic concern.

Methods

Participants

The present study was drawn from a study of 411 first year college students at a large, public university in the Midwestern United States. Of the 411 participants in the larger study, 351 had complete data for all measures in the current study and were included in the current analyses ($M_{age} = 18.62$ years, $SD = .37$; 63.5% female). The sample was representative of the incoming class: 40.41% of participants were non-Hispanic White, 26.62% were Asian, 6.95%

were mixed race, 8.44% were Latinx, 2.84% were Other Race, and 4.40% were African American. 10.34% of participants declined to report their race. All participants were living in University housing with a roommate. Participants provided written consent/assent and procedures were approved by the sponsoring institution's Institutional Review Board.

Procedure

Incoming first year students were contacted via email and invited to complete the study. Only incoming first year students living in university housing with one roommate were invited to participate and students living in off campus housing or with multiple roommates were excluded. Approximately two months after the start of their first year of college, participants completed a questionnaire as well as eight nights of daily diaries online. Participants completed the questionnaire via a unique link sent to their university email account. Daily diaries were sent via email at 9:00 pm each night for eight consecutive nights. Each email contained a unique link to that day's diary. Participants who completed the study received a voucher to a local business and were entered into a drawing to win \$100 (USD).

Measures

Daily helping behavior. Each evening for eight days, participants indicated on the daily checklist whether or not they engaged in four different helping behaviors each day. They were asked to report both emotional (one item: listened, gave advice, comforted) and instrumental support (three items: lent an item or money; helped with schoolwork; helped with chores/errands). Participants indicated separately whether they provided each type of support to their roommate or a friend. Responses were computed into four categorical variables (1 = yes, 0 = no) each day that indexed whether they provided instrumental support to a friend, whether they

provided instrumental support to a roommate, whether they whether they provided emotional support to a friend, and whether they provided emotional support to a roommate.

Daily psychological well-being. Daily psychological well-being was assessed with items on the daily checklist that were drawn from the Profile of Mood States (McNair et al., 1971) and used in prior research (e.g., Telzer & Fuligni, 2009). Participants used a 5-point scale ranging from 1 (not at all) to 5 (extremely) to indicate the extent to which they felt a number of emotions each day. *Positive Affect* was calculated as the mean of seven items (cheerful, calm, enthusiastic, excited, happy, interested, joyful), overall Cronbach's $\alpha = 0.95$, daily $\alpha = 0.92$ -0.94. *Negative Affect* was calculated as the mean of 15 items (discouraged, angry, hopeless, nervous, on edge, sad, mad, uneasy, worried, insecure, self-conscious, lonely, bored, embarrassed), overall Cronbach's $\alpha = 0.96$, daily $\alpha = 0.92$ -0.94.

Empathy. In the self-reported questionnaire, participants completed the Empathic Concern (EC) subscale of the Interpersonal Reactive Index (IRI; Davis, 1980). Participants responded to 7 items by indicating how well each item describes them on a 5-point scale (0 = "Not well" to 4 = "Very well"). Example items include "I often have tender, concerned feelings for people less fortunate than me" and "When I see someone being taken advantage of, I feel protective towards them" ($\alpha = 0.79$). Higher scores represented higher empathy.

Data analysis

Our aim was to understand how provision of instrumental and emotional support to friends and roommates relates to positive and negative affect the same day, and if these associations vary by sex and level of trait empathetic concern. We standardized all continuous variables, and conducted linear mixed effect models that nested days (Level 1) within participants (Level 2). Fixed effects were tested at the level of participants (i.e., Level 2). This

statistical approach accounts for dependency within participants and introduces less bias due to missing data compared to traditional statistical analyses, such as repeated measures analysis of variance (Finch et al., 2014; Raudenbush & Bryk, 2002). Model 1 tested all four helping behaviors (instrumental and emotional support to friends and roommates) as simultaneous Level 1 predictors of positive and negative affect the same day. Each dependent variable was run separately. Model 2 additionally included sex and empathy, as well as interaction terms between sex, empathy, and each helping behavior. All interactions were tested simultaneously.

To probe significant cross-level interactions, we used the simple slopes technique (Aiken et al., 1991) to test the associations between provision of support and affect for boys and girls, and for adolescents who had high levels (+ 1.5 SD above the mean) and low levels (- 1.5 SD below the mean) of empathy. To manage missing data, we used listwise deletion for person-day elimination. All analyses were conducted using Stata Software (StataSE, Version 15.1.632).

Results

Sample Characteristics

Table 1 displays descriptive statistics for sample constructs for the full sample and by sex. Table 2 displays bivariate correlations between study variables. On average, adolescents provided instrumental support to a friend on 45% of days, and instrumental support to a roommate on 23% of days. Similarly, on average, adolescents provided emotional support to a friend on 45% of days, and emotional support to a roommate on 24% of days. Females were significantly more likely to provide instrumental support to a friend, and emotional support to both a friend and a roommate, compared to males. There were no sex differences in instrumental assistance to a roommate. Females also reported significantly higher levels of positive affect and empathy compared to males. There was no sex difference in levels of negative affect.

Daily Helping Behaviors and Well-Being

Regression results are presented in Table 3. We first tested whether providing instrumental and emotional support to friends and roommates uniquely predict positive and negative affect. These direct associations are shown in Model 1. On days that participants provided instrumental or emotional support to a friend, they experienced higher levels of positive affect. Providing instrumental and emotional support to a friend was not associated with negative affect, and providing instrumental and emotional support to a roommate was not associated with positive or negative affect.

Sex and Empathy Moderate Associations between Support Provision and Negative Affect

Our next model tested whether sex and empathy moderated the associations between provision of support and positive and negative affect. These interactive associations are shown in Model 2. Sex significantly interacted with provision of instrumental support to friends to predict negative affect. As shown in Figure 1, providing instrumental support to a friend was associated with increased negative affect for male but not female adolescents.

Similarly, empathy significantly interacted with provision of emotional support to a roommate to predict negative affect. As shown in Figure 2, providing emotional support to a roommate was associated with increased negative affect for adolescents who had low levels of empathy, but decreased negative affect for adolescents who had high levels of empathy. Together, these findings suggest boys and adolescents who are low in empathy may experience an emotional toll associated with providing support for friends and roommates.

Discussion

The goal of this study was to understand how adolescents' provision of instrumental and emotional support to friends and roommates is associated with emotional well-being the same day,

and whether these associations vary by sex and level of empathetic concern. By examining these associations on the daily level in a large sample of first year college students, we revealed provisions of instrumental and emotional support to friends were uniquely associated with more positive affect at the end of the day. However, for males and adolescents who tended to be less empathetic, providing support was linked with more negative affect the same day. These findings suggest that although providing support to friends is by and large beneficial, it may come at a cost for some individuals, in particular young men and those who tend to have less empathetic concern for others.

Helping others is beneficial for most

Our primary finding was on days that adolescents provided instrumental or emotional support to a friend, they tended to have greater positive affect. In contrast, providing instrumental and emotional support to a roommate was not associated with either positive or negative affect. Thus, in our sample it appears that the effects of helping peers depends more on the target of support than the type of support, since the effects of instrumental and emotional support were similar. It is possible that providing friends support is more rewarding during the first year of college because adolescents choose their friends and subsequently may better enjoy these relationships and identify them with more closely. This interpretation is consistent with social identity theory, which posits that adolescents who feel more connected to others' social identities, such as close friends, are more likely to support that individual or group, and feel good about doing so (Adams & Marshall, 1996). If friends share adolescents' most important social identities (Adams & Marshall, 1996; Hogg, 2003), it may feel more rewarding to help them. In contrast, it may be more burdensome to help a roommate who could have been randomly assigned and not as integrated into a shared identity (Adams & Marshall, 1996; Erb et al., 2014).

Our finding that adolescents feel relatively happier after helping a friend, but not a roommate, is also consistent with evolutionary theories of altruism and empirical evidence from older adults. These have suggested that helping others may be more rewarding when the recipient is emotionally close (Brown & Brown, 2006; Brown et al., 2003). Feelings of closeness with personally selected friends may foster the desire to give support, and make that support feel more rewarding (Brown & Brown, 2006). While we found that both instrumental and emotional support are associated with greater well-being the same day, this contrasts previous evidence from a small sample in which first year college students felt happier after providing emotional support to a close friend, but not after providing instrumental support to a close friend (Morelli et al., 2015). This disparity in findings may be in part due to differences in measures or sample sizes, since our larger sample may be more able to detect uniquely significant effects.

Broadly, our study brings together two small studies during the first year of college which have independently linked helping behaviors towards a close friend to greater positive emotionality (Morelli et al., 2015), and helping behaviors towards a roommate to greater emotional reward for compassionate individuals (Crocker & Canevello, 2008). We build on this work by comparing the effects of two targets of support (i.e., friends and roommates), and two types of helping behaviors, in a large sample. Our results suggest that the social context of helping a friend, compared to a roommate, may be relatively more beneficial for the giver.

Helping others is costly for males and less empathetic individuals

While helping friends was on average associated with greater positive affect the same day, it was costly for some. First, providing instrumental support to a friend was associated with increased negative affect for male but not female adolescents. This is consistent with previous evidence that 10-11-year-old boys respond more negatively to help-giving and help-seeking laboratory tasks compared to girls (Rose & Asher, 2004). Since females are more likely than

males to engage prosocially with friends both in prior research among children and adolescents (e.g., Maccoby, 1990; Rose & Asher, 2004) and as reflected in mean-level differences in our sample, it is possible that females seek out or capitalize on opportunities to help friends more than males in part because they find it more intrinsically rewarding. In contrast, males may feel more burdened by providing instrumental assistance if males expect relatively less of their friendships (Parker & Asher, 1993; Rose & Asher, 2004, 2017), and so feel that helping represents extra, unwarranted demands. It is possible that there is this sex difference in the effects of instrumental support, but not of emotional support, in part because males provided very low levels of emotional support in our sample. In prior research, male children have also been shown to be less likely to talk about problems compared to female children (Maccoby, 1990; Rose & Asher, 2004; Tsai et al., 2016). Thus, low variability may partially explain why males' provision of emotional support to friends is not associated with either positive or negative affect.

Our moderation analysis also revealed that providing emotional support to a roommate was associated with increased negative affect for adolescents who had low levels of empathy, but decreased negative affect for adolescents who had high levels of empathy. This is consistent with prior evidence that first year college students who helped their roommate due to genuine compassion and concern felt less distressed compared those who were more self-oriented (Crocker & Canevello, 2008). We corroborate this finding in a much larger sample. Emotional support may be particularly taxing for low empathetic individuals because listening or comforting another can be emotionally draining at times, because it involves awareness of others' worries and distress (Hooper et al., 2008; Tsai et al., 2016). More empathetic individuals

may not be as burdened by providing emotional support if they gain a sense of intimacy or satisfaction that offsets these challenges (Brown & Brown, 2006; Crocker & Canevello, 2008).

Limitations & future directions

Several limitations should be acknowledged. First, due to the rich nature of daily diary data, there were some missing data. Days that adolescents did not respond to the diaries might represent the most difficult days with peers, and these could therefore be missing from analysis. In addition, our measures of instrumental and emotional support were dichotomous, indexing whether or not the adolescent provided any instrumental or emotional support that day. They do not account for the amount of time spent on each activity. As such, it is unclear from the current study how intensity or timing within individual days may impact the associations between provision of support to peers and emotionality. Future research should measure the timing and chronicity of providing support to peers, as well as motivation (i.e., intrinsic or extrinsic) to provide a more nuanced index, and to shed light on the mechanisms through which provision of instrumental and emotional support may be related to more positive affect on average (for example, by increasing positive shared experiences, self-confidence). Although the present study utilizes daily diary methods that can account for individual differences and thus offers robust predictive power, causality cannot be determined in this study.

Conclusion

The current study extends our understanding of adolescents' provision of help to peers during the important developmental transition into college. Much of what we know about adolescents helping behaviors comes from literature examining younger adolescents' provision of support to the family (Armstrong-Carter, Ivory, et al., 2019; Fuligni & Telzer, 2013), participation in formal volunteer work (Ballard et al., 2019; Lichter et al., 2002) or average

levels of helping behaviors (e.g., Eisenberg et al., 2002; Wentzel et al., 2007). We build on this work revealing that the effects of helping during the transition to adulthood may vary by the recipient, and to a lesser extent, by the type of support provided. Providing both instrumental and emotional support to friends (but not roommates) emerged as uniquely beneficial, yet helping may come at an emotional cost for males and less empathetic individuals. This work highlights the complex interplay between adolescents' helping behaviors, social context, and emotional well-being during a critical developmental transition towards expanding social networks and increasing independence.

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	Full Sample		Female		Male	
	M	SD	M	SD	M	SD
Empathy	1.21	(0.65)	1.44	(0.66) ¹	1.09	(0.62) ²
Instrumental Assistance to Friend	0.45	(0.50)	0.47	(0.50) ¹	0.41	(0.49) ²
Instrumental Assistance to Roommate	0.23	(0.42)	0.23	(0.42) ¹	0.24	(0.43) ¹
Emotional Support to Friend	0.45	(0.50)	0.53	(0.50) ¹	0.30	(0.46) ²
Emotional Support to Roommate	0.24	(0.43)	0.30	(0.46) ¹	0.13	(0.34) ²
Positive Affect	3.03	(0.95)	3.06	(0.91) ¹	2.97	(1.02) ²
Negative Affect	1.81	(0.72)	1.80	(0.72) ¹	1.83	(0.72) ¹

Table 1: Descriptive statistics for study constructs.

Note. For sex, means with the same number are not significantly different.

	1	2	3	4	5	6	7
1. Sex	-						
2. Empathy	-0.25***	-					
3. Inst. Assistance to Friend	-0.05*	0.09***	-				
4. Inst. Assistance to Roommate	0.02	0.02	0.15***	-			
5. Emo. Support to Friend	-0.22***	0.19***	0.27***	0.054*	-		
6. Emo. Support to Roommate	-0.19***	0.14***	0.12***	0.24***	0.25***	-	
7. Positive Affect	-0.05*	0.24***	0.17***	0.09***	0.14***	0.11***	-
8. Negative Affect	0.02	0.00	0.06**	0.10***	0.07**	0.06**	-0.20***

Table 2. Correlations between study constructs. *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, + $p < 0.1$. Sex was coded Male = 1, Female = 0

	Positive Affect				Negative Affect			
	Model 1		Model 2		Model 1		Model 2	
	B	SE	B	SE	B	SE	B	SE
Instrumental Assistance to Friend	0.14 (0.03)***		0.18 (0.04)***		0.05 (0.03)		0.02 (0.04)	
Instrumental Assistance to Roommate	0.03 (0.04)		0.05 (0.05)		0.03 (0.04)		0.05 (0.05)	
Emotional Support to Friend	0.08 (0.04)*		0.07 (0.04)		0.00 (0.03)		-0.02 (0.04)	
Emotional Support to Roommate	0.01 (0.04)		-0.02 (0.05)		0.07 (0.04)		0.04 (0.05)	
Sex			0.14 (0.11)				-0.09 (0.12)	
Trait Empathy			0.21 (0.05)***				0.00 (0.05)	
Sex × Instrumental Assistance to Friend			-0.12 (0.08)				0.17 (0.08)*	
Sex × Instrumental Assistance to Roommate			0.07 (0.09)				-0.03 (0.08)	
Sex × Emotional Support to Friend			0.02 (0.08)				0.08 (0.08)	
Sex × Emotional Support to Roommate			0.06 (0.11)				0.18 (0.10)+	
Empathy × Instrumental Assistance to Friend			0.00 (0.04)				-0.03 (0.04)	
Empathy × Instrumental Assistance to Roommate			-0.02 (0.04)				0.00 (0.04)	
Empathy × Emotional Support to Friend			0.00 (0.04)				0.03 (0.04)	
Empathy × Emotional Support to Roommate			0.00 (0.05)				-0.10 (0.04)*	
Constant	-0.12 (0.05)*		-0.16 (0.06)*		0.04 (0.05)		0.043 (0.07)	

Table 3. Daily association between positive and negative affect and four types of helping behaviors: providing instrumental support to a friend, providing instrumental support to a roommate, providing emotional support to a friend, and providing emotion support to a roommate.

Note. Robust standard errors are reported. Standard errors in parentheses. *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, + $p < 0.1$. Sex was coded Male = 1, Female = 0

Figure 1. Providing instrumental support to a friend is associated with increased negative affect the same day for male but not female adolescents.

Figure 2. Providing emotional support to a roommate is associated with increased negative affect the same day for adolescents who are low in trait empathy, but decreased negative affect for adolescents who are high in trait empathy.