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## Life Events and Prosocial Behaviors Among Young Adults: Considering the Roles of Perspective Taking and Empathic Concern

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### ABSTRACT

The authors examined the altruism born of suffering model in a culturally diverse sample of young adults. They hypothesized that major life events would interact with perspective taking to predict empathic concern, which would predict multiple types of prosocial behaviors among young adults. The sample included 202 young adults ( $M$  age = 20.94 years; 76.5% girls; 36.5% White, 50.5% Latino) who reported on their exposure to major life events, perspective taking and empathic responding, and tendency to engage in six forms of prosocial behaviors. Life events indirectly, positively predicted prosocial behaviors via empathic concern. Empathic concern and perspective taking also interacted to predict empathic responding. The results demonstrated links that support the altruism born of suffering model, suggesting that life stressors might not always be negative and might promote resilience and social connection among young adults under specific conditions.

### ARTICLE HISTORY

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### KEYWORDS

Life events; perspective taking; empathic concern; prosocial behaviors

Stressful experiences can contribute to negative behavioral outcomes, particularly when the stress is overwhelming, because young adults may become depleted of emotional and cognitive resources and become increasingly withdrawn from social interactions as a result of exposure to stressful events (see Lazarus & Folkman, 1984). One form of stress that may be salient for young adults is major life events. Life events can include numerous negative experiences, which may expose young adults to intense stress experiences (e.g., incarceration of a family member, death of a family member). Life events may be characterized by intense stress because of the magnitude of impact for many young adults and the adjustment required to cope effectively with these stressors (see Thoits, 2010). Therefore, understanding how life events are associated with outcomes for young adults is an important and understudied area of inquiry.

While the majority of existing research on stressful experiences and youth adjustment has focused on negative adjustment indices (i.e., aggression, internalizing symptoms; Suldo & Huebner, 2004), it is also important to examine resilience and positive developmental outcomes, including prosocial behaviors. Prosocial behaviors are defined as behaviors aimed at benefiting others and include helping behaviors such as volunteering, comforting others, and donating (Carlo & Randall, 2002). Prosocial behaviors are indicative of adjustment and health and are also critical for the positive functioning of broader society because of the focus on bettering the lives of others in the community (see Randall & Wenner, 2014). There is evidence, for example, that prosocial behaviors among youths are positively associated with academic performance, social

competence, and physical and mental health (Carlo, 2014). However, these actions require an orientation toward the needs of others and a care-based response to alleviate suffering in others. Such requirements could be challenging for youths who may be facing difficulties associated with the stressful consequences of major life events. The goal of the present study is to examine links between environmental stress associated with life events and multiple forms of prosocial behaviors among young adults.

Previous research has demonstrated complicated associations between stress and youth prosocial behaviors, such that specific stressors have been negatively linked to a global indicator of prosocial behaviors (Carlo, Padilla-Walker, & Day, 2011). There is also evidence that economic stress is positively associated with selfless helping behaviors specifically (Davis, Carlo, Streit, & Crockett, 2018). Additionally, other stressors (culturally based stressors) have been positively linked to specific forms of prosocial behaviors (McGinley et al., 2010). Therefore, in the present study, we aimed to examine links between life events and multiple forms of prosocial behaviors. The goal of the present study was to examine empathic concern as a mediator in the links between life events and prosocial behaviors. In addition, a further goal is to examine cognitive perspective taking as a moderating variable in the links between life events and empathic concern. The importance of cognitive perspective taking is to better understand the complex role of both contextual stressors and moral developmental characteristics in socially desirable behaviors.

### **Life events and prosocial behaviors**

Previous conceptual models suggest complicated, often inconsistent associations between stressors and prosocial behaviors. Specifically, stress and coping conceptual models suggest that specific characteristics surrounding stressful experiences contribute to youth outcomes, including behavioral (e.g., internalizing and externalizing) and cognitive (e.g., coping strategies) outcomes. When individuals feel they can exert control over their situation, they may feel lower levels of stress than individuals who perceive the stressor as outside of their control (Lazarus & Folkman, 1984). Alternatively, youths who are experiencing stress may become more attuned to the needs of others and may engage in higher levels of prosocial behaviors (Staub & Vollhardt, 2008). The altruism born of suffering concept suggests that traumatic events might actually foster an emotional connection to others and a desire to help others, which might predict higher levels of prosocial behaviors, particularly selfless helping behaviors aimed primarily at helping another (Staub & Vollhardt, 2008). Additionally, scholars have described the process of posttraumatic growth (process of learning about one's self and adapting to change after experiencing stressful events) that can occur for Latino/a individuals after experiencing major stressful events such as immigration (Berger & Weiss, 2006; Weiss & Berger, 2010). Because there are complex hypotheses suggesting that stressful experiences may be linked either positively or negatively to prosocial behaviors, more studies are needed.

The majority of existing literature has highlighted the negative behavioral consequences of exposure to stressful life events, but there is also some evidence that supports the altruism born of suffering concept. Multiple studies with adults highlight altruistic behaviors of people surviving tragedies (e.g., Holocaust, terrorist attacks; see Oliner, 2003; Schuster et al., 2001). While this model provides context for understanding the role of stress in promoting prosocial engagement, most of the research testing the altruism born of suffering notion has utilized adult samples following large traumatic events or disasters. However, one relevant study demonstrated positive links between stressful life events and prosocial behaviors among adolescents (Davis, Luce, & Davalos, 2018). There is also limited evidence that exposure to trauma positively predicts engagement in prosocial behaviors, but this study did not examine specific types of helping behaviors (Frazier et al., 2013).

## Life events and empathic concern

Because stressful events shape how individuals perceive their world (see Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1986), stress might predict young adults' empathic concern tendencies. Young adults might become overwhelmed with their own needs when experiencing stress and thus be less able to adequately empathize with others in need. Alternatively, some scholars suggest that stressors may contribute to emotional sensitivity for some people because increases in congruent thinking with others who have experienced stressful events, ultimately fostering empathic concern tendencies and prosocial behaviors (Fabes, Carlo, Kupanoff, & Laible, 1999).

Although research on the associations between stress and empathic concern is sparse, a few studies should be considered. Recently, scholars found that increased severity of adversity predicted empathy and a tendency to feel compassion for others in need (Lim & DeSteno, 2016). Hart and Fegley (1995) examined moral identity (including high levels of empathic concern) of urban adolescents and found that a group of adolescents described a primary desire to contribute to the well-being of others in the community as well as bettering the broader community through collective action. This study provides supportive evidence for the idea that adolescents living in risky contexts, who experience intense stressors, can be care exemplars with a strong moral identity, and that these adolescents may think deeply about the needs of others in the community and may engage in high levels of prosocial behaviors. Importantly, this study did not directly examine the links between stressful experiences and empathic concern, as was done in the present study. Research directly assessing the links between stressful life events and empathic concern is still limited and not well understood. The present study will address this gap by examining the associations among life events, empathic concern, perspective taking, and six forms of prosocial behaviors.

## Empathic concern and prosocial behaviors

Empathic concern has been identified as a mechanism that can lead to prosocial behaviors, as reducing the stress of others might be a primary motivator for individuals who are high in empathic concern (Fabes et al., 1999). Individuals who feel emotions congruent with others may be motivated to engage in prosocial behaviors aimed at helping others. Researchers have also demonstrated a consistent positive association between empathic concern and prosocial behaviors among diverse youths (see Eisenberg, Spinrad, & Morris, 2006; Fabes et al., 1999). For example, empathic concern positively predicted multiple types of prosocial behaviors among U.S. Mexican youths (Carlo, Knight, McGinley, & Hayes, 2011). Additionally, sympathy positively predicted general prosocial behaviors (without considering different types of helping) among Brazilian adolescents (Eisenberg, Zhou, & Koller, 2001). There is also longitudinal support for these links with adolescents from Spain, demonstrating that both perspective taking and empathic concern were positively associated with a general measure of prosocial behaviors (Carlo, Mestre, Samper, Tur, & Armenta, 2010; 2011). One study with low-income adolescents from the Midwest demonstrated links between empathic concern and multiple forms of prosocial behaviors (Davis et al., 2018). While the links between empathic concern and prosocial behaviors have been well documented, the present study will contribute to the existing literature by examining the role of empathic concern in the links between life events and prosocial behaviors among young adults.

## Role of perspective taking

When considering the links between life events and young adults' empathic concern, perspective-taking tendencies might be an important moderating factor. Perspective taking is the cognitive skill of understanding the situations of others (Davis, 1983). Because perspective taking is a cognitive process, it might promote affective responding, such as empathic concern (e.g., Davis &

Carlo, 2018; Oswald, 1996). Perspective taking is also often discussed as a trait among older adolescents and young adults because these specific cognitive skills are already developed and stable by late adolescence, and there are notable individual differences (Carlo, Knight, McGinley, Goodvin, & Roesch, 2010). In emerging adulthood, we might expect individual differences in perspective taking that play a salient role in sociomoral outcomes (Carlo, Knight, et al., 2010), which could result in differential effects of life event stressors on empathic concern. It may be that life events positively predict empathic concern for young adults who are high in perspective taking. Young adults with high perspective taking who experience stressors themselves might feel empathic toward others because of their own understanding of stressful events and suffering.

Consistent with this hypothesis, one previous study demonstrated that perspective taking interacted with economic stress to predict empathic concern such that adolescents who were experiencing high levels of economic stress and were high in perspective taking also had the highest levels of empathic concern (Davis et al., 2018). This finding suggests that stress might interact with cognitive perspective taking to predict empathic responding, although more research is needed to better disentangle the links between stress, perspective taking, and empathic concern. Evidence suggests that perspective taking is also associated with prosocial behaviors, although this evidence is less consistent as perspective taking may not always promote prosocial behaviors in the absence of other traits (e.g., moral reasoning and empathic concern; see Carlo, Knight, Basilio, & Davis, 2014; Randall & Wenner, 2014).

### ***Multidimensionality of prosocial behaviors***

Scholars have also recently suggested that prosocial behaviors are multidimensional and should not be examined as a global construct, as has been the case in previous literature on prosocial development (see Padilla-Walker & Carlo, 2014). Carlo and Randall (2002) proposed six forms of prosocial behaviors expressed frequently among adolescents and young adults: emotional, dire, compliant, anonymous, public, and altruistic. Emotional prosocial behaviors are behaviors expressed when others are experiencing intense emotions. Dire prosocial behaviors refer to helping in intense situations, including emergencies. Compliant prosocial behaviors include helping when others ask for help. Public prosocial behaviors are helping behaviors in front of an audience. Anonymous prosocial behaviors reflect helping when others are not aware, such as donating. Altruistic prosocial behaviors include helping with no expected benefit to the self, and possibly even costs to the helper (Carlo & Randall, 2002). Because public helping is conducted with the knowledge that others are watching, it is thought to be relatively more self-serving and there is evidence that such helping might be motivated by gaining others' approval (Carlo & Randall, 2002). Alternatively, altruistic helping is a relatively selflessly motivated form of helping because the helper does not expect anything in return. An additional purpose of the present study was to examine whether life events and empathic concern are differentially related to specific forms of prosocial behaviors among young adults.

### ***Hypotheses***

A primary goal of this study was to test the altruism born of suffering concept with a diverse sample of young adults. To accomplish this goal, we examined the mediating role of empathic concern in the links between life events and six forms of prosocial behaviors. We also examined the moderating role of cognitive perspective taking in the links between life events and empathic concern. We formulated the following hypotheses:

- Hypothesis 1 (H1): Life events would positively predict empathic concern and multiple forms of prosocial behaviors (with the exception of public prosocial behaviors which are selfishly motivated helping behaviors).

- H2: Perspective taking and empathic concern would also positively predict prosocial behaviors, although links between perspective taking and prosocial behaviors might be relatively weak as cognitive perspective taking alone might not be enough to predict helping behaviors.
- H3: Interactions between life events and perspective taking would predict empathic concern, such that for young adults high in perspective taking, empathic concern would increase as life events increased.

## Method

### *Participants and procedures*

Participants were recruited from undergraduate courses at the University of New Mexico, as well as the broader metropolitan community via flyers and social networking. All young adults 18–25 years old living in Albuquerque were eligible to participate, and 29% of the final sample was community members who were not attending the University of New Mexico. Recruitment materials included the email address of the primary researcher, and interested individuals contacted the researcher to schedule a time to meet and complete the survey. Albuquerque is a racially and culturally diverse city, with White populations comprising only 40% of the broader population (U.S. Census Bureau, 2017). Many families in Albuquerque also live in low socioeconomic brackets, with approximately 18% of the population living below the poverty line (U.S. Census Bureau, 2017). The final sample consisted of 202 young adults ( $M$  age = 20.94 years;  $SD$  = 1.71; age range = 18–25 years; 76.5% girls; 36.5% White, 50.5% Latino). Participants reported on their mothers' education as an indicator of family-level socioeconomic status (4.5% some high school [did not graduate], 21.2% high school, 28.8% some college [did not graduate], 23.7% college). Data were collected at the university or at neutral spaces in the community (i.e., coffee shops or libraries) at the participants' request. All participants received a \$10 gift card as compensation for their time.

### *Measures*

**Life events.** Participants completed a 30-item measure ( $\alpha$  = .83) of their exposure to life events: Adolescent Perceived Events Scale-Short (Compas, Davis, Forsythe, & Wagner, 1987). The Adolescent Perceived Events Scale is a checklist of major stressful life events that adolescents experienced in the past six months. Items include: death of a relative, arrest of a family member, and parents getting divorced. A mean score of this scale was used for analyses. This measure has been previously used to measure life events in adolescents and young adults and has demonstrated good reliability across studies (e.g., Newcomb & Harlow, 1986). The Adolescent Perceived Events Scale does include two items reflecting stress associated with economic conditions: parent loses a job and financial troubles or worried about money. Therefore, the life events construct also includes economic stressors, which were assessed in a previous study (Davis et al., 2018). This study provides partial replication of that study with a different sample, and is also an extension of the previous study (because of the inclusion of major life events as the predictor variable).

**Perspective taking and empathic concern.** Participants completed a measure of their cognitive perspective taking and empathic concern, the Interpersonal Reactivity Index (IRI) (Davis, 1983). The perspective-taking subscale assesses cognitive understanding of the perspective of other individuals (7 items;  $\alpha$  = .79). A sample item is, "I try to look at everybody's side of a disagreement before I make a decision." The empathic concern subscale assesses participants' emotional responses consistent with the negative emotions of others (7 items;  $\alpha$  = .79). A sample item is, "I often have tender, concerned feelings for people less fortunate than me." All items were rated on a 6-point Likert-type scale from 0 (*This doesn't describe me at all*) to 5 (*This describes me perfectly*).

The IRI has also been used with adolescent and young adult samples and has demonstrated good reliability and validity (Davis, 1983; Hawk et al., 2013; Tello, Egido, Ortiz, & Gandara, 2013).

**Prosocial Behaviors.** Participants completed the Prosocial Tendencies Measure-Revised (PTM-R; Carlo, Hausmann, Christiansen, & Randall, 2003), which assessed adolescents' tendency to engage in six forms of prosocial behaviors. Adolescents rated items on a 5-point Likert-type scale ranging from 1 (*Does not describe me well*) to 5 (*Describes me greatly*). Emotional prosocial tendencies (5 items;  $\alpha = .87$ ) include helping behaviors in situations that are emotionally intense. A sample item is, "It makes me feel good when I can comfort someone who is really upset." Dire prosocial tendencies (3 items;  $\alpha = .76$ ) include helping others in emergency situations. A sample item is, "I tend to help people who are in real crisis or need." Compliant prosocial tendencies (2 items;  $\alpha = .71$ ) include helping when others ask for help. A sample item is, "I never wait to help others when they ask for it." Public prosocial behaviors include helping in front of others (3 items;  $\alpha = .75$ ). A sample item is, "When other people are around, it is easier for me to help others in need." Altruistic prosocial behaviors include helping with no expected reward (4 items;  $\alpha = .73$ ). A reverse-scored sample item is, "I believe I should receive more rewards for the time and energy I spend on volunteer service." Anonymous prosocial behaviors include helping without the knowledge of others (4 items;  $\alpha = .80$ ). A sample item is, "I think that helping others without them knowing is the best type of situation." The PTM-R has demonstrated good internal reliability, test-retest reliability, convergent validity, and discriminant validity (Carlo et al., 2003).

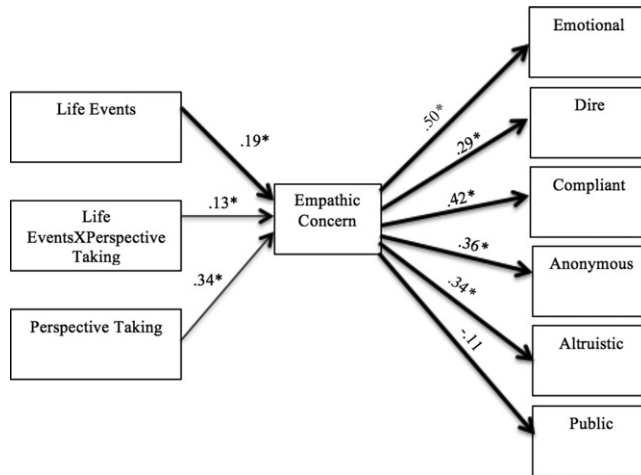
## Results

Initially, descriptive statistics and bivariate correlations among all variables were examined (see Table 1). To examine the direct and indirect associations between life events, perspective taking, and prosocial behaviors via empathic concern, we conducted path analyses using maximum likelihood estimation in SPSS AMOS (Byrne, 2010). The model included life events, perspective taking, and the interactive effect between life events and perspective taking as the exogenous variables, which were set to predict empathic concern and the six forms of prosocial behaviors. Empathic concern, in turn, was set to predict the six forms of prosocial behaviors. All direct paths from perspective taking and life events to prosocial behaviors were included. Gender was entered as a statistical control. Model fit in path analysis is considered good if the comparative fit index (CFI) of .95 or greater (fit is adequate at .90 or greater), and the root mean square error of approximation (RMSEA) is less than or equal to .06 (values of .08 or less indicate adequate fit; Byrne, 2010). Fit for the overall model was good,  $\chi^2(2) = 0.95$ ,  $p = .62$ , CFI = 1.00, RMSEA = .000. Maximum likelihood estimation was used to handle missing data.

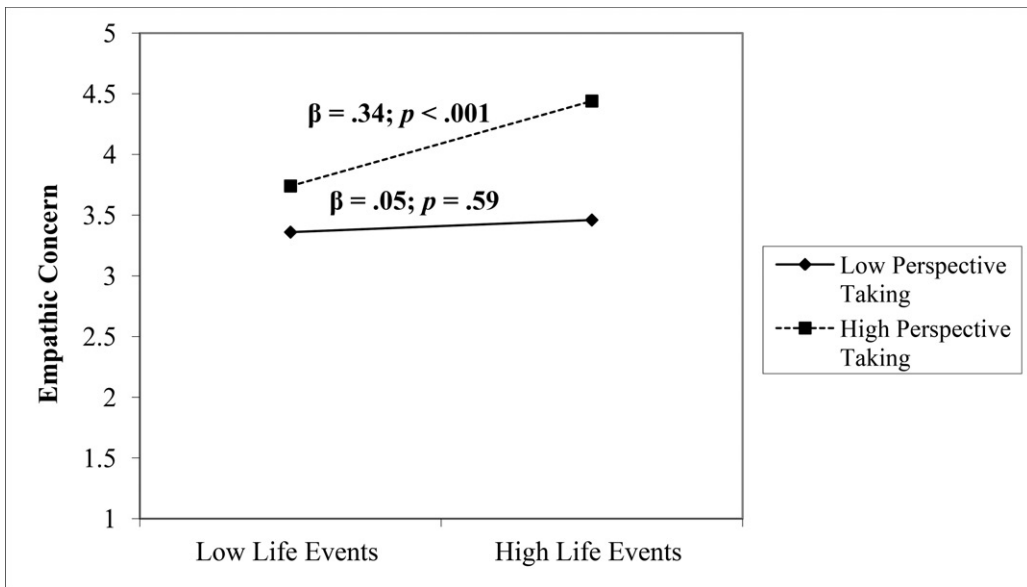
The results (see Figure 1) demonstrated that life events and perspective taking positively predicted empathic concern. The interaction between empathic concern and perspective taking was also positively associated with empathic concern such that empathic concern was highest for young adults who were high in both perspective taking and life events (see Figure 2). The results

**Table 1.** Descriptive statistics and correlation matrix for life events, perspective taking, empathic concern, and prosocial behaviors.

Variable	1.	2.	3.	4.	5.	6.	7.	8.	9.
1. Life events									
2. Perspective taking	-.09								
3. Empathic concern	.18*	.35*							
4. Emotional	.15*	.18*	.52*						
5. Dire	.13	.23*	.32*	.53*					
6. Compliant	.06	.26*	.44*	.52*	.41*				
7. Anonymous	.14*	.15*	.33*	.27*	.33*	.31*			
8. Altruistic	.08	.14*	.38*	.05	.03	.10	.08		
9. Public	-.05	-.18*	-.22*	.08	.06	.01	-.12	-.59*	
<i>M (SD)</i>	1.42 (0.19)	3.44 (0.78)	3.74 (0.77)	3.73 (0.90)	3.74 (0.91)	3.79 (0.94)	3.18 (0.99)	4.30 (0.73)	1.89 (0.81)



**Figure 1.** The associations between life events, perspective taking, and prosocial behaviors via empathic concern. All direct paths were included in the analyses, but are not represented because there were no significant direct paths.



**Figure 2.** The interactive effects of life events and perspective taking on young adults' empathic concern.

of the simple slopes analysis revealed that the slope for adolescents high in perspective taking was significant ( $\beta = .34; p < .001$ ), but the slope for adolescents low in perspective taking was not significant ( $\beta = .05; p = .59$ ). Empathic concern, in turn, positively predicted emotional, dire, compliant, anonymous, and altruistic prosocial behaviors and negatively predicted public prosocial behaviors. There were no significant direct links between life events or perspective taking and prosocial behaviors. The  $R^2$  values for each outcome variable are as follows: empathic concern = .19, emotional prosocial behaviors = .28, dire prosocial behaviors = .13, compliant prosocial behaviors = .21, anonymous prosocial behaviors = .13, altruistic prosocial behaviors = .15, and public prosocial behaviors = .06.

Next, bias-corrected bootstrap confidence intervals (using 1,000 bootstraps) were used across the whole sample to examine the indirect effects through empathic concern for both perspective



taking and life events (MacKinnon Lockwood, Hoffman, West, & Sheets, 2002). These analyses allowed us to examine the role of empathic concern in explaining the links between both life events and perspective taking in prosocial behaviors. The following indirect effects from life events through empathic concern were significant: life events to dire prosocial behaviors (indirect effect = .07, 95% CI [.02, .13],  $p = .001$ ), life events to emotional prosocial behaviors (indirect effect = .11, 95% CI [.05, .18],  $p = .001$ ), life events to compliant prosocial behaviors (indirect effect = .09, 95% CI [.04, .15],  $p = .001$ ), life events to anonymous prosocial behaviors (indirect effect = .08, 95% CI [.04, .14],  $p = .001$ ), and life events to altruistic prosocial behaviors (indirect effect = .07, 95% CI [.03, .13],  $p = .001$ ). The following indirect effects from perspective taking through empathic concern were significant: perspective taking to dire prosocial behaviors (indirect effect = .11, 95% CI [.06, .18],  $p = .001$ ), perspective taking to emotional prosocial behaviors (indirect effect = .19, 95% CI [.12, .27],  $p = .001$ ), perspective taking to compliant prosocial behaviors (indirect effect = .15, 95% CI [.10, .22],  $p = .001$ ), perspective taking to anonymous prosocial behaviors (indirect effect = .14, 95% CI [.09, .21],  $p = .001$ ), and perspective taking to altruistic behaviors (indirect effect = .12, 95% CI [.07 to .21],  $p = .001$ ).

## Discussion

The purpose of this study was to first examine the relationship between life events and multiple forms of prosocial behaviors. As expected, the results of the present study support the altruism born of suffering notion by suggesting that life events positively predicted empathic concern, which were positively associated with emotional, dire, compliant, anonymous, and altruistic prosocial behaviors and negatively associated with public prosocial behaviors. These findings support the altruism born of suffering perspective and highlight the role that life events might play in young adults' social emotions and prosocial behaviors. Because public prosocial behaviors are thought to be more self-serving, owing to the focus on maintaining a positive reputation in front of others, individuals who are high in empathic concern tendencies might be less inclined to engage in this specific form of helping. Stressful life events might also directly predict helping behaviors because helping others might be a productive coping strategy that promotes positive affect in the helper and provides a sense of purposefulness (see Midlarsky, 1991). Helping behaviors might also induce empathic responding over time (McGinley & Carlo, 2007), contributing to a positive process of helping and empathy development.

Our second hypothesis explored perspective taking and empathic concern and the impact on prosocial behaviors. While our findings did not show a direct relationship between life events or perspective taking and the six prosocial outcomes, the present study provides empirical support for the altruism born of suffering notion, highlighting the potentially positive role of life events in predicting young adults' emotional connection with others and ultimately positive social behaviors aimed at helping others, including selfless prosocial behaviors. The sample most highly endorsed items related to interpersonal functioning (see Table 2), such as relationship problems and financial issues, which might also play a role in predicting helping behaviors. As social relationships are important for positive social functioning (Cohen, 2004), experiencing disruptions in relationships might push young adults to seek out positive social interactions in the form of helping behaviors. The pattern of reported life events was similar for university students and community members. However, there was one item that was endorsed more frequently by community members: "death of a friend." Therefore, considering the salient stressors that are occurring for specific young adult populations is an important consideration. These findings further highlight the importance of considering the role of stressors and sociocognitive tendencies in shaping positive sociomoral development to better understand resiliency and positive social outreach among young adults.

Our final hypothesis examined interactions between life events and perspective taking on predicting empathic concern. The results demonstrated an interactive effect between life events and

**Table 2.** Most frequently endorsed items from Adolescent Perceived Events Scale, and the number of participants who endorsed each item.

Item	Participants who endorsed item (%)
1. Feeling pressured by friends (friends expecting you to do things or be a certain way).	56.5
2. Fight with or have problems with a friend.	56
3. Death of family member or relative	37.5
4. Hospitalization of a family member or relative.	55.5
5. Doing poorly on an exam or paper (if relevant).	65
6. Being around people who are inconsiderate or offensive (people who are rude, selfish).	77
7. Arrest of a family member	19.5
8. Getting into trouble or facing discipline at school (e.g., academic probation, academic dismissal) or work	19
9. Hassles, arguments or fights with peers or other students at school or work	26.5
10. Financial troubles or worries about money.	76
11. Getting bad grades on assignments, quizzes, or finals (if relevant).	57.5
12. Having bad classes, teachers, or employers.	58
13. Having few or no friends	44.5
14. Arguments or fights between your parents	57.5
15. Family member or relative having emotional problems (being really sad, worried)	69.5
16. Arguments or problems with boyfriend/girlfriend	57
17. Something bad happens to a friend	56.5
18. Parents discover something you didn't want them to know	29.5
19. Not spending enough time with family members or friends	66.5
20. Problems or arguments with parents, siblings, or family members	66.5
21. Problems or arguments with professors or other university personnel (e.g., instructor, dean, advisor), or work supervisors	12.9
22. Death of a friend	16.6
23. Parent loses a job	13
24. Parents getting divorced	10
25. Getting punished by parents	21.5
26. Friends having emotional problems (being really upset, sad, etc.)	70
27. Breaking up with or rejected by a boyfriend/girlfriend	35.5
28. Arrest of a friend or family member	22
29. Got in trouble with the law (e.g., arrested)	5.5
30. Get fired from a job	8.5

perspective taking in predicting young adults' empathic concern. For young adults who were high in life events and perspective taking, empathic concern was the highest. These results support previous work on economic stress and perspective taking among U.S. Latino/a adolescents, which demonstrated a similar pattern of results (Davis et al., 2018). It may be that young adults who are able to understand the situations of others and think about the needs of others seek out emotional connections with others during times of stress. This work also supports work on posttraumatic growth by suggesting that young adults who have experienced adversity might better understand the experiences of others who are suffering, which might promote empathic responding and prosocial action (Berger & Weiss, 2006; Weiss & Berger, 2010). These results demonstrate the importance of considering sociocognitive factors when thinking about the links between stress and empathic responding.

The results of the present study support the altruism born of suffering notion by suggesting that life events positively predicted empathic concern, which were positively associated with emotional, dire, compliant, anonymous, and altruistic prosocial behaviors and negatively associated with public prosocial behaviors. These findings support the altruism born of suffering perspective and highlight the role that life events might play in young adults' social emotions and prosocial behaviors. Because public prosocial behaviors are thought to be more self-serving, due to the focus on maintaining a positive reputation in front of others, individuals who are high in empathic concern tendencies might be less inclined to engage in this specific form of helping. Stressful life events might also directly predict helping behaviors because helping others might be a productive coping strategy that promotes positive affect in the helper and provides a sense of purposefulness (see Midlarsky,

1991). Helping behaviors might also induce empathic responding over time (McGinley & Carlo, 2007), contributing to a positive process of helping and empathy development.

## Limitations

Despite the contributions of the present study, there are also several limitations. The cross-sectional study design does not permit any inference regarding the direction of effects. The proposed model is based in previous theory and literature, but it is also plausible that adolescents' prosocial behaviors might predict their empathic responding and perceptions of stress. Future researchers should rely on multiple designs, such as cross-lagged, longitudinal models that can help disentangle these links and better understand these relations across time. Additionally, all measures were young adults' self-report, so there could be shared method variance and self-presentational biases. Future researchers should utilize a variety of methods, including behavioral tasks and observational measures to validate these results. Finally, the sample consisted of young adults who were primarily enrolled in a university (although the sample was racially and ethnically diverse), and emerging adults in this sample did not report high levels of life events. Future researchers should examine these processes among diverse samples of adolescents to better understand the role of contextual risk factors among young adults from a variety of socioeconomic conditions.

## Conclusions

The present study extends the research on stressful events and prosocial behaviors among young adults and provides empirical support for the altruism born of suffering concept, particularly for young adults who are high in perspective taking. Because experiencing stress and limited resources might debilitate social capital and predict negative outcomes, understanding resilience under conditions of stress is critical. The findings suggest that stressful experiences might not always be negative for adjustment; as such experiences might promote social awareness and engagement with others. These findings are important to promote a holistic understanding of young adult development and promote resilience among populations experiencing high levels of stress. Focusing on prosocial development remains a priority among scholars, as such behaviors are indicators of health and well-being for individuals, but also benefit the broader community and contribute to social functioning and collective harmony.

## Notes on contributors

*Alexandra N. Davis* is an assistant professor of Family and Child Studies at the University of New Mexico in the department of Individual, Family, and Community Education. Her research focuses on cultural and contextual stressors and links to positive adjustment of marginalized youth.

*Ashley Martin-Cuellar* is currently serving in a postdoctoral positive at the University of New Mexico in the department of Individual, Family, and Community Education. Her research focuses on the well-being of family practitioners and counselors and the impact of burn-out on social service professionals.

*Haley Luce* worked on this research as an undergraduate research assistant in the department of Individual, Family, and Community Education at the University of New Mexico under the supervision of Dr. Alexandra Davis.

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