

RESEARCH PAPER

Managing Multiple Roles for Generation Stress: An Exploratory Investigation of Positive Resources Impacting Conflict and Enrichment in College Students

Jessica M. Nicklin¹, Kendra Brown¹ and Sarah Ketay¹

Corresponding author

¹Jessica M Nicklin,
200 Bloomfield Avenue,
West Hartford, CT 06119, USA
Email: nicklin@hartford.edu

Affiliations

¹University of Hartford, USA

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Abstract

Background: College students report higher stress levels than previous generations, yet many college campuses are not equipped to handle the increasing demand for support. This suggests a need for enhancing positive coping resources, specifically related to stress associated with competing life demands. The current studies examine if three positive coping resources: self-compassion, mindfulness, and resilience are associated with lower levels of conflict from competing roles (i.e., school, work, and personal-life) for college students.

Method: Participants in Study 1 ($N = 96$) and Study 2 ($N = 171$) were recruited from an undergraduate psychology research pool at a private institution in the Northeastern United States. They were provided with a survey assessing resilience, mindfulness, self-compassion, conflict, and stress.

Results: Using correlational and regression analyses, across both studies, the three psychological resources were significantly related to reductions in conflict from competing roles. Specifically, mindfulness and self-compassion were related to lower school-to-personal-life conflict, and resilience and mindfulness were related to lower personal-life to school conflict. Further, in both studies, school-to-personal-life conflict partially mediated the relationship between self-compassion and stress.

Discussion: The present study is the first to demonstrate that positive psychological resources may be linked with lower levels of conflict from competing roles and lower stress in college students. Our results suggest interventions targeting these positive resources could be especially impactful for balancing personal-life and school conflict to reduce stress in college students. Future research should utilize experimental methods and longitudinal designs to further understand these findings.

Conclusions: Given the high level of stress among college students, we see enhancing self-compassion as a top priority for higher-education institutions to reduce stress stemming from conflict among competing roles.

Key words: resilience, mindfulness, self-compassion, conflict, balance, enrichment

Abstract

Contexte: Les étudiants des collèges signalent des niveaux de stress plus élevés que les générations précédentes, mais de nombreux campus universitaires ne sont pas équipés pour répondre à la demande croissante de soutien. Cela suggère un besoin d'améliorer les ressources d'adaptation positives, spécifiquement liées au stress associé aux exigences concurrentes de la vie. Les études actuelles examinent si trois ressources d'adaptation positives: la compassion personnelle, la pleine conscience et la résilience sont associées à des niveaux de conflit plus faibles liés à des rôles concurrents (c.-à-d. École, travail et vie personnelle) pour les étudiants.

Méthode: Les participants à l'étude 1 ($N = 96$) et à l'étude 2 ($N = 171$) ont été recrutés dans un pool de recherche en psychologie de premier cycle dans un établissement privé du nord-est des États-Unis. Ils ont reçu une enquête évaluant la résilience, la pleine conscience, la compassion personnelle, les conflits et le stress.

Résultats: En utilisant des analyses de corrélation et de régression, dans les deux études, les trois ressources psychologiques étaient significativement liées à la réduction des conflits des rôles concurrents. Plus précisément, la pleine conscience et la compassion personnelle étaient liées à un conflit entre l'école et la vie personnelle, et la résilience et la pleine conscience étaient liées à un conflit entre la vie personnelle et l'école. De plus, dans les deux études, le conflit entre l'école et la vie personnelle a partiellement influencé la relation entre la compassion personnelle et le stress.

Discussion: La présente étude est la première à démontrer que des ressources psychologiques positives peuvent être liées à des niveaux de conflit plus faibles dus à des rôles concurrents et à un stress moindre chez les étudiants. Nos résultats suggèrent que les interventions ciblant ces ressources positives pourraient être particulièrement efficaces pour équilibrer la vie personnelle et les conflits scolaires afin de réduire le stress chez les étudiants. Les recherches futures devraient utiliser des méthodes expérimentales et des conceptions longitudinales pour mieux comprendre ces résultats.

Conclusions: Étant donné le niveau élevé de stress chez les étudiants, nous considérons l'amélioration de la compassion personnelle comme une priorité absolue pour les établissements d'enseignement supérieur afin de réduire le stress résultant des conflits entre les rôles concurrents.

Mots-clés: résilience, pleine conscience, auto-compassion, conflit, équilibre, enrichissement

Undergraduate students face many challenges when entering college. With increased independence, academic demands, and concerns over finances, many struggle to manage their academic, personal, and professional lives, which can lead to increased stress (e.g., Bland, Melton, Welle, & Bigham, 2012; Greeson, Juberg, Maytan, James, & Rogers, 2014). Prolonged stress in college students leads to a number of negative outcomes, including increases in anxiety and depression (e.g., Dyson & Renk, 2006), drinking and recreational drug use (Dusselier, Dunn, Wang, Shelley, & Whalen, 2005), and decreases in academic success (e.g., Andrews & Wilding, 2004). Many young adults lack the coping skills required to balance their competing demands and many college campuses lacking adequate resources to deal with the increasing number of students needing support (e.g., Grasgreen, 2012). It is therefore critical to examine psychological resources and coping skills that can be strengthened to buffer the negative effects associated with managing multiple roles. Yet little, if any, research has examined how positive psychological resources are linked with college students' ability to minimize perceptions of conflict (defined herein as when roles compete with each other) and maximize perceptions of enrichment (defined herein as when roles benefit each other).

This is an important and timely area of research. According to the Center for Collegiate Mental Health (CCMH, 2016), the number of college students seeking counseling, hospitalizations, and suicide attempts have increased, with anxiety, depression, stress, family, and academic performance identified as the top five mental health concerns. It is imperative to examine factors that reduce conflict among school, work, and personal-life and promote enrichment among these roles, in order to provide students with resources to manage their competing life demands. Furthermore, since many college campuses are ill equipped to handle the increase in mental health demands, it is critical that academic institutions educate students on *trainable* psychological resources that are linked with lower stress. Therefore, the purpose of this paper is to explore if positive psychological resources (resilience, mindfulness, and self-compassion) are linked with work-, school-, and personal-life conflict, work-, school-, and personal-life enrichment, and stress, among college students. By capitalizing on their own positive coping resources, students may be more successful at managing multiple life roles to thrive in college and beyond.

THEORETICAL BACKGROUND

Conflict. The *scarcity perspective* asserts that people have a fixed amount of resources, such as time and energy, and given the

culmination of role expectations from various life domains (i.e., work, family, school), they will ultimately become overwhelmed (Barnett & Gareis, 2006; Goode, 1960; Marks, 1977). Drawing on the work-family research, *work-family conflict* is "a form of inter-role conflict in which the role pressures from the work and family domains are mutually incompatible in some respect" (Greenhaus & Beutell, 1985, p. 77). Work can interfere with family (work-to-family conflict; WFC) and family can interfere with work (family-to-work conflict; FWC). The research literature consistently demonstrates that role conflict, in both directions, is associated with a number of negative outcomes, such as: reductions in job and family satisfaction, and increases in stress, burnout, depression, and alcohol use (e.g., Allen et al., 2000; Huang et al., 2019).

Given the increase in undergraduate students working full-time (e.g., Davis, 2012) and adults returning to school for graduate education (Council of Graduate Schools, 2016), attention has been devoted toward understanding *work-school conflict*: the extent to which work interferes with a student's ability to meet school-related demands and responsibilities (Cinamon, 2018; Markel & Frone, 1998). Research illustrates that work-school conflict is associated with a decrease in grades and increase in stress (Sy, 2006), depression (Cinamon, 2016), and burnout (McNall & Michel, 2016). However, the identity of the college student goes beyond work and academics, and in large part revolves around one's personal life, including friends and family (Bureau of Labor Statistics, 2016). For example, in a sample of married working adult students, Kremer (2016) found that conflicts among work, family, and school were all positively associated with increased stress. Xu and Song (2013, 2016) demonstrated that conflicts among work, family, and school were associated with increased depression and decreased positive affect in nursing students.

Enrichment. An updated understanding of the work-life interface recognizes that multiple role memberships (i.e., daughter, student, and employee) can have both negative and positive outcomes (Greenhaus & Powell, 2006). The *role accumulation perspective* suggests that resources acquired in one role can be invested in other roles (Sieber, 1974) and that participation in one role can create energy that is used to improve experiences in other roles (Marks, 1977). Also grounded in the work-family literature, *work-family enrichment* is defined as "the extent to which experiences in one role improve the quality of life in the other role" (Greenhaus & Powell, 2006, p. 73). Work-to-family enrichment (WFE) occurs when the experiences in the work role positively influence the family role; and, family-to-work enrichment (FWE) occurs when experiences in the family role positively influence the work role. In support of the role

accumulation perspective, recent research shows that work-family enrichment is associated with higher levels of job, family, and life satisfaction, organizational commitment, and physical and mental health (e.g., McNall, Nicklin, & Masuda, 2010). Thus, contrary to the popular notion that multiple roles deplete resources, these roles may also help to generate resources that benefit other life domains (see Allen & Angela, 2017 for an overview).

Research has just recently begun to investigate *work-school enrichment*. This occurs when the school role improves as a function of the work role (and vice versa). McNall and Michel (2011) found that work-school enrichment was positively associated with job satisfaction, school satisfaction, and performance. Furthermore, McCabe (2016) illustrated through in-depth interviews with 67 college students that friendships yield academic and social benefits and that students seek a good balance between their academic and social lives. The blurred lines between classmate and friend can be positive: students study together, hold each other accountable, and provide support. Therefore, it is likely that college students can experience benefits of holding multiple roles, potentially through the accumulation of resources. Recently, Park and Headrick (2018) called for more empirical research exploring resources that can be made available for students, and to test their effectiveness in reducing work-school conflict and promoting work-school enrichment.

Conservation of Resources. A common approach to explaining the process by which enrichment and conflict impact individuals is Conservation of Resources Theory (COR; Hobfoll, 1988, 2002; see Hobfoll et al., 2018 for a review). According to COR, people seek to “obtain, retain, and protect resources and stress occurs when resources are threatened with loss or lost when individuals fail to gain resources after substantive resource investment” (Hobfoll, 2002, p. 312). Stress increases in the presence of threat or through a loss of resources (e.g., conflict). For instance, a student who stays late at work loses out on time spent towards studying and gaining knowledge, which leads to increased stress. When individuals encounter such a conflict, those with greater coping resources can better navigate problems and manage stress. Thus, COR theory can explain how both conflict and enrichment occur.

POSITIVE RESOURCES FOR BALANCING WORK-SCHOOL- PERSONAL LIFE

The present study expands on previous research (e.g., McNall & Michel, 2016; Xu & Song, 2013) by exploring specific positive psychological resources that can be strengthened. These resources

were chosen based on recent theoretical (Nicklin, McNall, & Janssen, 2018) and empirical (Nicklin, Meachon, & McNall, 2018) support pointing to their effectiveness.

Resilience. In the face of adversity, *resilience*, allows individuals to “bounce back” (Britt, Shen, Sinclair, Grossman, & Klieger, 2016). In college students, resilience may promote moving beyond negative events to return to a higher level of functioning and performance. Hartley (2011) found that resilience was associated with higher levels of mental health and Wilks (2008) and Wilks and Spivey (2010) found a negative relationship between resilience and stress for students. Resilience may also be an effective resource for balancing multiple life roles. Braunstein-Bercovitz, Frish-Burstein, and Benjamin (2012) found a negative relationship between work-family conflict and resilience. Krisor, Diebig, and Rowold (2015) found resilience to be positively related to work-family balance. Nicklin, Meachon, and McNall (2018) found resilience to be negatively related to conflict associated with work, school, and personal-life, and positively related to enrichment associated with work, school, and personal-life in graduate students.

Mindfulness. Another important resource is *mindfulness*: awareness that arises through paying attention, on purpose, in the present moment, nonjudgmentally (Kabat-Zinn, 1990). Mindfulness is an effective resource for improving academic performance (e.g., Zenner, Hrnleben-Kurz, & Walach, 2014), and research shows that graduate students with higher levels of mindfulness show lower levels of perceived stress (Sherrington, 2013). Furthermore, Allen and Kiburz (2012) found in a sample of working adults that trait mindfulness was positively associated with work-family balance. Similarly, Michel et al. (2014) showed that those in a mindfulness intervention group experienced less strain-based work-family conflict. Nicklin, Meachon, and McNall (2018) found among a sample of graduate students that mindfulness was negatively related to stress and conflict associated with work, school, and personal-life, and positively related to enrichment associated with work, school, and personal-life. Conflict and enrichment both partially mediated the relationship between mindfulness and stress.

Self-compassion. Self-compassion is a positive psychological resource that involves “being open to and moved by one’s own suffering, experiencing feelings of caring and kindness toward oneself, taking an understanding, non-judgmental attitude toward one’s inadequacies and failures, and recognizing that one’s experience is part of the common human experience” (Neff, 2003, p. 224). Sirois (2014) found self-compassion to be negatively related to stress across three undergraduate samples. Terry, Leary, and Mehta (2013) examined levels of self-

compassion before starting college, and found that those higher in self-compassion faced less homesickness and depression. Regarding managing multiple roles, Flavin and Swody (2016) demonstrated that common humanity, a sub-dimension of self-compassion, was positively correlated with work-family enrichment. Nicklin, Meachon, and McNall (2018) found that for graduate students, self-compassion was positively related to enrichment associated with work, school, and personal-life, and negatively related to stress and conflict associated with work, school, and personal-life. They also found that conflict partially mediated the self-compassion and stress relationship.

PRESENT STUDY AND HYPOTHESES

The work-family balance literature provides a starting point for understanding the management of multirole memberships in college students. Still, with the exception of recent research by Nicklin, Meachon, and McNall (2018) who only looked at graduate students, research is lacking on how conflict and enrichment from multiple roles impacts students. Study 1 examines the associations of resilience, mindfulness, and self-compassion on conflict among work, school, and personal-life; and Study 2 expands this to include enrichment among work, school, and personal-life roles. Consistent with COR theory (Hobfoll, 1989; 2002; 2018) we believe that the presence of positive resources may be associated with lower stress in college students. Higher levels of resilience (e.g., Li, 2008), mindfulness (e.g., Zenner et al., 2014), and self-compassion (e.g., Sirois, 2013) have been associated with positive benefits. Thus, we expect that: *Positive resources (resilience, mindfulness, and self-compassion) are negatively related to stress (Hypothesis 1).*

While the work-family literature has shown that work-family conflict is positively related to stress (e.g., Allen et al., 2000) and work-family enrichment is negatively related to stress (McNall et al., 2010), less is known about how conflict and enrichment impact stress levels in college students. Xu and Song (2013, 2016) and Kremer (2016) examined work-family conflict in working adults, but focused exclusively on family, not including other important domains relevant to college students. Nicklin, Meachon, and McNall (2018) found that among graduate students enrichment was positively and conflict was negatively related to stress, but these authors did not explore the unique sources of conflict and enrichment from work, school, and personal-life. Thus, expanding on previous theory and research arguing that multirole memberships can generate strain and additional resources, we expect: *(a) Conflict among work, school, and personal-life is positively related to stress and (b) enrichment among work, school, and personal-life is negatively related to stress (Hypothesis 2).*

Consequently, COR maintains that the storing of positive resources is critical for successfully navigating daily life challenges. Thus, we expect that when students have more resources, they will experience less conflict among work, school, and personal-life and more enrichment among work, school, and personal-life. While little research has looked at how positive psychological resources influence conflict and enrichment in college students, initial research from the work-family literature supports this supposition (e.g., Allen & Kiburz, 2012; Netemeyer, Boles, & McMurrin, 1996). *Therefore, we predict: (a) Positive resources are negatively related to conflict among work, school, and personal-life and (b) positively related to enrichment among work, school, and personal-life (Hypothesis 3).*

STUDY 1

Method

Participants and Procedures. Participants ($N = 96$) were recruited from an undergraduate psychology research pool at a medium-sized private institution in the Northeastern United States. Surveys were administered during individual appointments with an experimenter. After screening the data, two participants were removed for careless responding. Of the 94 participants, 72% were female, 56% white/Caucasian, and the mean age was 18.54, $SD = .97$. Most participants were first-year students (76.5%), from a variety of majors. The mean grade point average of the sample was 3.46 ($SD = .47$), with students enrolled in an average of 18.54 credits, $SD = .97$.

Measures

Resilience. Psychological resilience was measured using the 14-item ego-resiliency scale (Block & Kremen, 1996; e.g., "I enjoy dealing with new and unusual situations"). This scale was assessed on a 1 (*does not apply*) to 4 (*applies very strongly*) Likert-type scale, $\alpha = .73$.

Mindfulness. The 15-item Mindfulness Attention Awareness Scale (MAAS; Brown & Ryan, 2003) was used to assess trait levels of mindfulness. Participants were asked to read the statements and rate on a 1 (*almost always*) to 6 (*almost never*) Likert-type scale the degree to which the statement *really reflects* their experiences. An example item is: "I rush through activities without being really attentive to them." We reverse coded the items so that they were on the same scale as the resource variables, $\alpha = .81$.

Self-Compassion. The Self-Compassion Scale Short-Form (SCS-SF; Raes, Pommier, Neff, & Van Gucht, 2011) was used to assess self-compassion. The 12-item measure asked participants to rate on a 1 (*almost never*) to 5 (*almost always*) Likert-type scale how often they

behave in the stated matter. An example item is: “When something upsets me I try to keep my emotions in balance,” $\alpha = .83$.

Conflict. Based on Netemeyer et al. (1996) and Cheng and McCarthy (2013), we used 18-items (1-*strongly disagree* to 7- *strongly agree*) assessing conflict among the school, work, and personal-life domains. Three items were used to assess each possible source of conflict. Example items include: “The demands of my job interfere with my school related duties” and “strain from my personal life interferes with my responsibilities in school.” Reliabilities ranged from .70 to .86.

Stress. To assess psychological stress, Lemrye and Tessier’s (2003) nine-item measure was used. This is a six-point (1-*not at all* to 6-*quite a bit*) Likert-type scale that assesses the degree to which participants have experienced each feeling in the last 4-5 days. An example item is “I have difficulty controlling my reactions, emotions, moods, or gestures”, $\alpha=.86$.

Flag item. To capture careless responding we asked participants to “please circle 3”.

RESULTS

Tests of Hypotheses. Hypothesis 1 predicted that positive resources are negatively related to stress. As depicted in Table 1, the positive

resources were significantly ($p < .01$) negatively related to stress, with correlations ranging from $-.28$ (resilience) to $-.54$ (self-compassion). In support of Hypothesis 2, conflict from all sources (school, work, personal-life) was significantly ($p < .01$) positively related to stress, with correlations ranging from $.23$ (personal-life-to-work conflict) to $.54$ (school-to-personal-life conflict).

Hypothesis 3 predicted that positive resources are negatively related to conflict. As shown in Table 1, mindfulness and self-compassion were significantly negatively related to all sources of conflict, except for school-to-work conflict, with correlations ranging from $-.21$ (mindfulness and personal-life-to-work conflict) to $-.37$ (self-compassion and school-to-personal-life conflict). Resilience was significantly negatively related to personal-life-to-school conflict only, $r = -.22$. Thus, Hypothesis 3 was mostly supported.

Exploratory Analyses. Conflict between school and personal-life was most strongly related to stress and most consistently negatively related to the positive resources explored. Therefore, we entered the positive resources (resilience, mindfulness, and self-compassion) at Step 1 ($F(3, 90) = 16.45, p < .01; R^2 = .35$) and both directions of personal-life-school conflict at Step 2 ($F(5, 88) = 15.37, p < .01; \Delta R^2 = .12$) of a multiple regression analysis. In addition to the significant

Table 1: Study 1 Descriptive Statistics and Bivariate Correlations

	Mean	SD	N	1	2	3	4	5	6	7	8	9	10
1. resilience	2.89	.43	94	(.73)									
2. mindfulness	3.80	.68	94	.18	(.81)								
3. self-compassion	2.89	.65	94	.29**	.32**	(.83)							
4. W→PLC	3.70	1.47	91	-.08	-.30**	-.32**	(.84)						
5. W→SCHC	3.39	1.52	91	.01	-.23*	-.23*	.55**	(.86)					
6. SCH→PLC	4.68	1.34	94	.01	-.35**	-.37**	.41**	.39**	(.73)				
7. SCH→WC	3.39	1.38	92	.06	.01	-.18	.46**	.58**	.45**	(.70)			
8. PL→WC	2.77	1.32	92	-.17	-.21*	-.25*	.28*	.39**	.22*	.43**	(.81)		
9. PL→SCHC	3.39	1.50	94	-.22*	-.26*	-.30**	.14	.22*	.38**	.08	.46**	(.82)	
10. stress	4.29	1.37	94	-.28**	-.38**	-.54**	.33**	.33**	.54**	.29**	.23*	.32**	(.86)

Note. 1. Resilience; 2. Mindfulness; 3. Self-Compassion; 4. Work-to-Personal Life Conflict; 5. Work-to-School Conflict; 6. School-to-Personal Life Conflict; 7. School-to-Work Conflict; 8. Personal Life-to-Work Conflict; 9. Personal Life-to-School Conflict; 10. Stress.

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

Coefficient Alphas are located on the diagonal

Table 2: Results of Multiple Regression Analysis for Study 1

	Stress	t	P	β	F	df	p	R ²
Model 1					16.45	3, 90	.00	.35
Resilience		-1.23	.22	-.11				
Mindfulness		-2.52	.01	-.23				
Self-compassion		-4.74	.00	-.44				
Model 2					15.37	5, 88	.00	.47
Resilience		-1.97	.05	-.17				
Mindfulness		-1.38	.17	-.12				
Self-compassion		-3.42	.00	-.31				
PL→SCHcon		.22	.82	.02				
SCH→PLCon		4.04	.00	.37				

improvement in R-squared, when adding the conflict variables, self-compassion ($\beta = -.31$, $t = -3.42$) remained a significant independent predictor of stress. Furthermore, school-to-personal-life conflict was a significant independent predictor of stress ($\beta = .37$, $t = 4.04$), whereas personal-life-to-school conflict was not, $\beta = .02$, $t = .22$. See Table 2.

Given the patterns of correlations and regression results, we explored if school-to-personal-life conflict was a mediating mechanism linking self-compassion to stress. Self-compassion was a significant predictor of lower levels stress, $\beta = -.54$ (step 1) and lower school-to-personal-life conflict, $\beta = -.37$ (step 2). School-to-personal-life conflict was a significant predictor of stress when controlling for self-compassion, $\beta = .39$ (step 3). Finally, the relationship between self-compassion and stress was reduced with the inclusion of school-to-personal-life conflict ($\beta = -.54$ vs. $-.40$), but still significant (step 4). The results of the Sobel Test were significant, providing support for partial mediation, $Z = -2.94$, $p < .01$.

STUDY 2

In Study 2, we reexamine conflict from the domains of school, work, and personal-life, but include enrichment to provide a more balanced picture of the work-school-personal life interface. We also obtained a larger sample size for more statistical power and greater generalizability. Finally, we used a different assessment of resilience: the Connor and Davidson's (2003) CD-RISC to improve our measurement and understanding of resilience.

Method

Participants and Procedures. Participants ($N = 171$) were recruited

from an undergraduate psychology research pool at a medium-sized private institution in the Northeastern United States. Surveys were administered in groups. After screening the data, five participants were removed for consistent careless responding. Of the 166 participants, 66.9% were female, 65.7% white/Caucasian, and the mean age was 19.38, $SD = 2.45$. Most participants were first-year students (54.0%), from a variety of majors. The mean grade point average of the sample was 3.16 ($SD = .57$), with students enrolled in an average of 15.67 credits, $SD = 2.87$.

Measures

Mindfulness, self-compassion, conflict, and stress were all measured using the same scales as Study 1 with reliabilities ranging from .73 to .95.

Resilience. To measure resilience, the 25-item Connor-Davidson Resilience Scale (CD-RISC; Connor & Davidson, 2003) was used. Participants were instructed to rate how true each statement was of them on a 1 (*not at all true*) to 5 (*true nearly all of the time*) Likert-type scale. An example item is: "When things look hopeless, I don't give up." Support for the scale's reliability and validity can be found in the literature (Connor & Davidson, 2003), $\alpha = .85$.

Enrichment. We used items from Carlson, Kacmar, Wayne and Grzywacz (2006) to create an 18-item scale (1-*strongly disagree* to 7-*strongly agree*) capturing the six possible sources of enrichment. Three items were used for each direction. Alphas ranged from .79-.87.

Example items include: "My involvement in school helps me to gain knowledge and this helps me in my personal life" and "My involvement at my job puts me in a good mood and this helps me to do better at school."

Table 3: Study 2 Descriptive Statistics and Bivariate Correlations

	Mean	SD	N	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. resilience	3.87	.42	166	(.85)															
2. mindfulness	3.69	.71	166	.15	(.80)														
3. self-comp	2.97	.61	165	.41**	.38**	(.80)													
4. W→PLC	3.92	1.48	100	-.04	-.18	-.19	(.77)												
5. W→SCHC	3.51	1.70	99	.01	-.01	-.03	.62**	(.86)											
6. SCH→PLC	4.83	1.34	165	-.04	-.20**	-.20*	.22*	.26**	(.81)										
7. SCH→WC	3.57	1.52	99	-.12	-.17	-.10	.33**	.61**	.34**	(.73)									
8. PL→WC	2.53	1.44	98	-.13	-.18	.02	.28**	.35**	.08	.35**	(.80)								
9. PL→SCHC	3.54	1.73	166	-.22**	-.21**	-.04	.16	.28**	.30**	.26**	.54**	(.87)							
10. SCH→WE	4.44	1.34	98	.27**	-.03	.21*	-.04	-.04	-.11	.03	-.11	-.08	(.79)						
11. SCH→PLE	5.01	1.20	166	.25**	.01	.14	.06	.04	-.08	.00	-.11	-.16*	.65**	(.81)					
12. W→SCHE	4.14	1.56	97	.12	-.02	.19	-.15	-.08	-.10	.03	-.08	.03	.46**	.27**	(.87)				
13. W→PLE	4.30	1.50	97	.15	.02	.16	-.15	-.16	.00	-.00	-.11	.02	.36**	.19	.79**	(.87)			
14. PL→WE	4.72	1.37	96	.28**	.03	.22*	.12	.10	.17	.22*	-.04	-.10	.28**	.34**	.41**	.43**	(.84)		
15. PL→SCHE	5.11	1.32	165	.26**	.08	.26**	.19	.16	.14	.23*	.02	-.06	.37**	.42**	.28**	.34**	.73**	(.87)	
16. stress	4.59	1.35	166	-.28**	-.27**	-.37**	.07	-.01	.34**	.10	.17	.17*	-.12	-.14	-.01	-.05	-.12	-.13	(.87)

Note. 1. Resilience; 2. Mindfulness; 3. Self-compassion; 4. Work-to-Personal Life Conflict; 5. Work-to-School Conflict; 6. School-to-Personal Life Conflict; 7. School-to-Work Conflict; 8. Personal Life-to-Work Conflict; 9. Personal Life-to-School Conflict; 10. School-to-Work Enrichment; 11. School-to-Personal Life Enrichment; 12. Work-to-School Enrichment; 13. Work-to-Personal Life Enrichment; 14. Personal Life-to-Work Enrichment; 15. Personal Life-to-School Enrichment; 16. Stress.

*p < .05, **p < .01

Coefficient Alphas are located on the diagonal

Flag items. To capture careless responding we asked participants to: “please leave this item blank;” “please indicate “3”; and “please choose 7 for this response.”

RESULTS

Tests of Hypotheses. Table 3 illustrates the bivariate correlations, descriptive statistics, and Coefficient Alphas for all study variables.

In support of Hypothesis 1, each of the three positive resources were significantly negatively related to stress: ranging from $r = -.27$ (mindfulness) to $r = -.37$ (self-compassion). Contrary to Hypothesis 2, which predicted that conflict is positively and enrichment is negatively related to stress, only school-to-personal-life conflict ($r = .34$) and personal-life-to-school conflict ($r = .17$) were significantly related to stress.

Hypothesis 3 predicted that the positive resources are negatively

related to conflict and positively related to enrichment. Table 3 reveals that mindfulness ($r = -.20$) and self-compassion ($r = -.20$) were significantly negatively related to school-to-personal-life conflict. Resilience ($r = -.22$) and mindfulness ($r = -.21$) were significantly negatively related to personal-life-to-school conflict. No other significant relationships were found for conflict.

In terms of enrichment, resilience ($r = .25$) was significantly related to school-to-personal-life enrichment. Resilience ($r = .26$) and self-compassion ($r = .26$) were significantly related to personal-life-to-school enrichment. Self-efficacy ($r = .21$), resilience ($r = .27$), and self-compassion ($r = .21$) were also significantly related to school-to-work enrichment, while resilience ($r = .28$) and self-compassion ($r = .22$) were related to personal-life-to-work enrichment. Thus, Hypothesis 3 was partially supported.

Exploratory Analyses. Similar to Study 1, the pattern of correlations guided by the a priori hypotheses revealed that conflict between personal-life and school was most strongly related to stress (Hypothesis 1) and the positive resources explored (Hypothesis 3). Therefore, we ran a multiple regression analysis whereby the three positive resources were entered as predictors of stress at Step 1 ($F(3, 160) = 12.57, p < .01; R^2 = .19$) and both directions of personal-life school conflict were entered at Step 2, $F(5, 158) = 10.86, p < .01; \Delta R^2 = .07$. In addition to the model improvement, the results showed that by adding the conflict variables, self-compassion ($\beta = -.21, t = -2.57$) and resilience ($\beta = -.17, t = -2.16$) remained significant independent predictor of stress. School-to-personal life conflict was a significant independent predictor of stress ($\beta = .25, t = 3.41$), whereas personal-life to school conflict was not, $\beta = .03, t = .39$. See Table 4.

Given the regression results and the patterns of correlations, we tested for mediation as in Study 1. In this study, self-compassion was a significant predictor of stress, $\beta = -.38$ (step 1) and school-to-personal-life conflict, $\beta = -.20$ (step 2). School-to-personal-life conflict was a significant predictor of stress when controlling for self-compassion, $\beta = .27$ (step 3). Finally, the relationship between self-compassion and stress was reduced with the inclusion of school-to-personal-life conflict ($\beta = -.38$ vs. $-.33$), but still significant (step 4). The results of the Sobel Test were significant, providing support for partial mediation, $Z = -2.14, p < .05$.

In terms of enrichment, we ran the same multiple regression analyses whereby the four resources were entered as predictors of stress at Step 1 ($F(3, 160) = 11.68, p < .01; R^2 = .18$), and the two sources of enrichment (personal-life-to-school and school-to-personal life) were entered at Step 2, $F(5, 158) = 7.14, p < .01; R^2 = .18$. Adding the enrichment variables did not significantly improve model fit. Self-

compassion was still the strongest predictor of stress, even when the enrichment variables were entered; resilience and mindfulness both remained significant independent predictors of stress (see Table 4).

DISCUSSION

Stress among college students is a pervasive and serious issue. With many college campuses unable to meet the growing mental health load (e.g., Grasgreen, 2012), the purpose of this research was to examine if positive psychological resources were associated with role-related conflict, enrichment, and stress in the undergraduate population. Consistent with previous research, the present studies demonstrate the importance of psychological resources among college students, and highlight self-compassion as a particularly promising resource that warrants further investigation.

Study 1 showed that all sources of conflict (work, school, and personal-life) were significantly positively related to stress, but school-to-personal-life conflict had the strongest positive relationship with stress. Study 2 showed that only school-to-personal-life conflict and personal-life-to-school conflict were significantly positively related to increased stress. The difference in the two studies may be due to the fact that in Study 2 we asked participants to indicate “does not apply” when they did not have a job, and in Study 1, they were permitted to use the entire rating scale regardless of job status. Nevertheless, the findings highlight that college students are particularly sensitive to conflict between personal-life and school demands. This makes sense given that students spend most of their days on personal activities (Bureau of Labor Statistics, 2016), and there is significant overlap in one’s personal and school life while in college. It may be difficult to escape the identity of *student* while engaging in personal-activities, but easy to step out of the *employee* (i.e., cashier, babysitter) role. Similarly, it may be difficult to be fully engrossed in academic work when routinely surrounded by others.

Contrary to our predictions and COR (Hobfoll, 1988), Study 2 did not support a negative relationship between sources of enrichment and stress. Given that the majority of sample were first-year students, it is possible that they did not yet have enough time or experience to store up resources from each of their respective roles to perceive a benefit, or perhaps they could not yet recognize how the gains from school, personal-life, and work benefit various life domains. Future research should re-examine enrichment in senior-level and graduate student samples.

In support of Hypothesis 3, our findings demonstrate that positive resources negatively influence some sources of conflict (Study 1 and

Table 4: Results of Multiple Regression Analysis for Study 2

Stress	T	P	β	F	df	p	R ²
Model 1				12.57	3, 160	.00	.19
Resilience	-2.10	.04	-.16				
Mindfulness	-2.22	.03	-.17				
Self-compassion	-2.98	.00	-.25				
Model 2				10.86	5, 158	.00	.26
Resilience	-2.16	.03	-.17				
Mindfulness	-1.65	.10	-.13				
Self-compassion	-2.57	.01	-.21				
PL→SCHcon	.39	.70	.03				
SCH→PLCon	3.41	.00	.25				

Stress	T	P	β	F	df	p	R ²
Model 1				11.68	3, 160	.00	.18
Resilience	-2.11	.04	-.17				
Mindfulness	-2.07	.04	-.16				
Self-compassion	-2.82	.01	-.24				
Model 2				7.14	6, 158	.00	.18
Resilience	-1.84	.07	-.15				
Mindfulness	-2.10	.04	-.16				
Self-compassion	-2.75	.01	-.24				
PL→SCHenrich	.07	.95	-.01				
SCH→PLenrich	-.90	.37	.08				

Study 2) and positively influence some sources of enrichment (Study 2). In particular, in both studies, mindfulness and self-compassion were negatively related to school-to-personal-life conflict, and resilience and mindfulness were negatively related to personal-life-to-school conflict. This again points to the daily overlap among school and personal-life domains for college students, and the importance of identifying resources, such as self-compassion, mindfulness, and resilience to combat perceptions of conflict among these roles.

In both studies, school-to-personal-life conflict was the most strongly positively associated with stress, and individuals with the lowest levels self-compassion showed the highest stress levels. Further, our regression analyses revealed self-compassion and school-to-personal-life conflict were independent predictors of stress, and both studies demonstrated school-to-personal-life conflict partially mediated the relationship between self-compassion

and stress. This shows that resources, specifically self-compassion, may impact stress; but can also do so through sources of conflict; in this case school-to-personal-life conflict.

Thus, being kind and non-judgmental toward oneself is important for reducing perceptions of school interfering with one’s personal life, which may be associated with lower levels of stress.

LIMITATIONS AND FUTURE DIRECTIONS

This research is the first to demonstrate that positive psychological resources may be associated with lower levels of stress stemming from competing role conflict in undergraduate college students. However, both studies were correlational in nature and derived from a single source at a single point in time, so causality cannot be determined

(Eby, Capster, Lockwood, Bordeaux, & Brinley, 2005). Following the recommendations of Nicklin, McNall, and Janssen (2018), future researchers should use longitudinal designs to determine if students use resources to adapt to conflict between school and personal life over time, which will help establish temporal ordering of events (e.g., Britt et. al., 2016).

We also recommend the use of experimental and quasi-experimental designs to isolate the effects of positive resources on perceptions of conflict. Researchers could assess perceptions of conflict before and after a self-compassion intervention in a lab or field setting. Future research should also take into consideration factors that may influence stress levels in college students, such as hours worked, time spent studying, or family care responsibilities. While our studies did not show a significant relationship between work hours and stress and did not assess other potential influential factors, this should be included in future work.

Finally, findings of previous work (e.g., Neff & Germer, 2013) point to mindfulness self-compassion programs as effective for decreasing depression, anxiety, and stress. Future work should examine if such programs and interventions are effective for reducing perceptions of conflict in college students, by comparing treatment groups to control groups. Our research sets the groundwork for future studies and practical initiatives on college campus, but more work is needed.

IMPLICATIONS

The workplace literature has consistently shown that psychological resources are effective for reducing stress (e.g., Avery, Luthans, & Jensen, 2009; Schaufeli, Bakker, & Van Rhenen, 2009) and that work-family conflict is linked with stress (Amstad, Meier, Fasel, Elfering, & Semmer, 2011). Our findings add to this by being the first to demonstrate that positive psychological resources are associated with lower levels of stress related to role conflict in college

students. This adds to the literature in a number of ways. Our focus on “personal-life” expands previous work-family research and highlights the importance of examining the whole person. Our results indicate that conflict related to personal-life is especially salient for college students. By demonstrating that self-compassion is associated with lower stress, and with lower levels of personal-life-to-school conflict we help identify positive resources for role-related conflict in college students. While this is consistent with a recent and growing body of research (e.g., Nicklin, McNall, & Janssen, 2018; Nicklin, Meachon, & McNall, 2018), more exploration is needed to further understand this relationship.

From a practical perspective, these results illustrate the need for undergraduate students to be given training on how to strengthen positive psychological resources. Research has already shown promising results for educational interventions targeted at promoting resilience (Steinhardt & Dolbier, 2008), mindfulness (Oman et al., 2008), and self-compassion (Neff & Germer, 2013). Introducing and reinforcing the importance of these resources at first-year orientations, in the classroom, and during academic advising could result in prominent benefits for both individuals and institutions. Given our results, we see a focus on teaching self-compassion as a priority. Learning to be kind and forgiving to oneself may provide students with a protective mechanism for balancing multiple roles and handling stress upon entering college. ■

Citation

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Biographies

Jessica M. Nicklin is an Associate Professor Psychology and AVP for Student Success at the University of Hartford. Her research interests include workplace motivation, positive psychology, and work-life balance

 <https://orcid.org/0000-0003-3595-6339>

Kendra Brown is a graduate student in clinical psychology at the University of Hartford. Her research interests include mental health stigma and trauma

 <https://orcid.org/0000-0002-5360-3134>

Sarah Ketay is an Associate Professor of Psychology at the University of Hartford. Her research focuses on the neuroendocrine correlates of social interactions, self and cultural orientation, mindfulness and self-compassion, and the biological basis of stress

 <https://orcid.org/0000-0003-4780-421X>

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