Life Adversity, Social Support, Resilience, and College Student Mental Health

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The Problem

- Student mental health has become an increasing concern for colleges over the past decade (NAMI, 2014)
- College is thought an opportune time to provide services and interventions to help students improve mental health (ACE, NASPA, & APA, 2014)

The Problem, Con't

- Integration of social support into interventions for mental health may increase student mental health and decrease social stigma against mental illness (ACE, NASPA, & APA, 2014)
- Social support alone may not be sufficient to help improve student mental health (Galatzer-Levy, Burton, & Bonanno, 2010; Nurius, Logan-Greene, & Green, 2012)
  - but should be part of a more encompassing intervention program such as resilience (Hartley, 2012; DeRosier, Frank, Schwartz, & Leary, 2013)

The Problem, Con't

- Screening for and promoting resilience in university counseling centers is an asset-based, preventative approach (Hartley, 2012)
- Resilience interventions empower students to use protective factors such as coping strategies and reappraisal of stressors, helping increase student mental health (Hartley, 2012)
- Resilience interventions help decrease the negative effects of ACEs and student stress. In conjunction with social support, resilience is found to improve mental health in the college student population (DeRosier, Frank, Schwartz, & Leary, 2013)

What is Resilience?

- The ability to 'bounce back' or show positive outcomes, despite facing adverse life experiences (Luthar, Cicchetti, & Becker, 2000)
- Resilience is the positive response to an adverse experience (Fergus & Zimmerman, 2005)
- Consists of the ability to utilize or draw upon social support to obtain favorable outcomes (Garmezy, 1985)

What is Resilience?

- Resilience is a process, triggered via risk factors engaging protective factors, thereby producing favorable outcomes (Luthar, Cicchetti, & Becker, 2000)
- Protective factors in resilience can mediate the impact of risk upon the outcome up to a certain degree, after which poorer outcomes are again obtained (Seery, 2011; Fergus & Zimmerman, 2005)
- Too little risk does not initiate the resilience process, and too much risk is appraised as insurmountable(Seery, 2011; Fergus & Zimmerman, 2005)

What is Resilience?

- In this study, resilience is seen as a process drawing upon these factors
  - Risk Factors: college student hassles and adverse childhood experiences
  - Protective Factor: social support
  - Outcome: mental health

Risk Factors

Adverse Childhood Experiences

- >60% of the United States population have experienced one or more ACE prior to age18 (Anda, Croft, Felitti, Nordenberg, Giles, Williamson, & Giovino, 1999; McGavock & Spratt, 2014; Mersky, Topitzes, & Reynolds, 2013).
- Some common ACES are: physical, sexual, and emotional abuse and neglect, parental separation or divorce, domestic violence, and parental substance abuse.
- Individuals experiencing ACEs are more prone to increased rates of mental illness (Nurius, Logan-Greene, & Green, 2012).

College Student Hassles

- College students face more academic pressure, more financial burdens, new social demands and freedoms than in high school (Kruisselbrink Flatt, 2013)
- Top 10 stressors for 1st year college students were: completing homework, making good grades, studying, meeting personal academic standards, procrastination, heavy workload, writing assignments, too many responsibilities, meeting deadlines, and not enough time to relax (DeRosier, Frank, Schwartz, & Leary, 2013)
- Other hassles experienced by college students include academic stress, financial concerns, identity stress, social stress, time management concerns (Hartley, 2012; DeRosier, Frank, Schwartz, & Leary, 2013).

Protective Factors

Social Support

- Social support results in more favorable college mental health, both in respect to ACEs and college student hassles (DeRosier, Frank, Schwartz, & Leary, 2013; Hefner & Eisenberg, 2009; Tajalli, Sobhi, & Ganbaripanah, 2010; Galatzer-Levy, Burton, & Bonanno, 2010; Powers, Ressler, & Bradley, 2009)
- Higher amounts of social support and lower amounts of college daily hassles are associated with better mental health outcomes (Hefner & Eisenberg, 2009; Tajalli, Sobhi, & Ganbaripanah, 2010)
- Social support, resilience, and the interaction between social support and resilience all significantly predict mental health, with resilience having more of an impact than social support (Liu & Xu, 2013)

Resilience and Mental Health

- Individuals who experienced higher levels of college student hassles and ACEs experienced less favorable mental health, with the exception of students who experienced higher rates of resilience (Leary & DeRosier, 2012; DeRosier, Frank, Schwartz, & Leary, 2013; Fergusson & Horwood, 2003)
- Resilience has positive correlations with positive emotionality and psychological well-being and negative correlations with depression, anxiety, poor general health, and psychological distress (Haddadi & Besharat, 2010; Robinson, Larson, & Cahill, 2013)
- Resilience buffers the negative effects of ACEs and college student hassles, resulting in little to no symptomology, resulting in better academic performance and positive psychological well-being (Campbell-Sills, Cohan, & Stein, 2006; Fergusson & Horwood, 2003; DeRosier, Frank, Schwartz, & Leary, 2013; Hartley, 2013; Lai & Mak, 2009)

Literature Review Recap

- Very few studies have evaluated all three variables of resilience, ACEs, and mental health in the same study.
- Even fewer studies have evaluated these variables in addition to social support and current life hassles.

Hypotheses

1. Adverse childhood experiences, current college student hassles, and social support will significantly predict college student resilience.
2. Adverse childhood experiences, current college student hassles, social support, and resilience will significantly predict college student mental health.
3. ACEs will negatively correlate with resilience and mental health.

Methods- Participants

- 660 participants were recruited from CWU:
  - between 18 and 30 years of age
  - proficient in English
  - able to access the internet
- >98% of participants were obtained via
  - SONA
  - CPORT
- Anonymous raffle for one $50 VISA gift card

Methods- Measures

- All variables were measured through previously developed surveys
- *Resilience:* CD-RISC-10
- *Adverse Childhood Experiences:* ACEs Questionnaire
- *College Student Hassles:* ICSRLE
- *Social Support:* MSPSS
- *Mental Health:* PGWBI

Methods-Data Analysis

- Simultaneous multiple regression analysis was used to answer hypotheses 1 and 2.
- A correlation matrix was produced in answering hypothesis 2 that is used in answering hypothesis 3.

Results- Participants

- Sample size was narrowed to 507
  - For missing data
- Demographics
  - Average 20.8 years of age
  - 73% female
  - 71% Caucasian

Descriptive Statistics

Table 6
Basic Descriptive Statistics, Coefficient Alpha, and Correlations Between Predictor Variables (n = 507)

Variable	ACEs	ICSRLE	MSPSS	CD-RISC-10	PGWBI
M	1.79	44.57	66.03	27.59	67.95
SD	2.02	23.15	14.32	6.37	18.11
α	.74	.95	.93	.88	.95

***p < .05 level; **p < .01 level (2-tailed)**

Data for each variable reveals <u>continuity with former studies</u>

Suggests that the demographic variables do not affect the interpretation of results

ACEs Prevalence Rates

Table 7
ACE Prevalence Rates Across Studies (%)

ACEs	Anda	McGavock	Mersky	Current
0	36.1	44	20.5	34.5
1	26.0	21	31.6	22.1
2	15.9	14	20.8	15.0
3	9.5	9	11.8	11
4 or more	12.5	12	15.3	17.4
M	1.61	1.57	1.81	1.79
N	17,337	765	1,142	507

Anda et al. (2006); McGavock and Spratt (2014); Mersky et al. (2013)

Multiple Regression Assumptions

- Sample size
- Normality
  - ACEs square root transformed
- Linearity and Homoscedasticity
- Independence of Errors
- Multicollinearity and Singularity

✓ ***All assumptions were met***

Results- Hypothesis 1

Table 8
College Student Resilience Related to Adverse Childhood Experiences, College Life Hassles, and Social Support (N = 507)

Variable	Zero-Order r				β	t
	ACEs[a]	ICSRLE	MSPSS	CD-RISC		
MSPSS				.27**	0.20	4.33**
ICSRLE			-.35**	-.29**	-0.23	-4.97**
ACEs		.28**	-.25**	-.09*	0.03	0.56
					Adjusted R^2 = .12	
M	1.02	44.57	66.03	27.59		
SD	0.86	23.15	14.32	6.37		

[a] ACEs was square root transformed for the purpose of normality
*p < .05 level; ** p < .01 level

***F*(3,503) = 22.28, *p* < .05, *adjusted* R^2 = .12**

Results- Hypothesis 2

Table 9
College Student Mental Health Related to Adverse Childhood Experiences, College Life Hassles, Social Support, and Resilience (N = 507)

Variable	Zero-Order r					β	t
	ACEs[a]	ICSRLE	MSPSS	CD-RISC	PGWBI		
CD-RISC					.53**	0.36	11.18**
MSPSS				.27**	.36**	0.07	2.18*
ICSRLE			-.35**	-.29**	-.64**	-0.50	-14.86**
ACEs		.28**	-.25**	-.09*	-.25**	-0.06	-1.83
						Adjusted R^2 = .55	
M	1.02	44.57	66.03	27.59	67.95		
SD	0.86	23.15	14.32	6.37	18.11		

[a] ACEs was square root transformed for the purpose of normality
***p < .05 level; **p < .01 level**

***F*(4,502) = 152.92, *p* < .01, *adjusted* R^2 = .55**

Results- Hypothesis 3

- Adverse childhood experiences negatively correlate with:
  - college student resilience ($r = -.09$, $p < .05$)
  - mental health ($r = -.25$, $p < .01$)

Discussion- Hypothesis 1

- CD-RISC-10 was significantly predicted
  - ICSRLE > MSPSS
  - No ACEs significance
- Higher MSPSS → Higher Resilience, Lower College Life Hassles, Lower ACEs
- Higher ICSRLE → Lower Resilience, Lower MSPSS, Higher ACEs
- Higher ACEs→ Lower Resilience, Lower MSPSS, Higher College Life Hassles

Discussion- Hypothesis 1

- College life hassles have a higher correlation with resilience than either social support or ACEs, a finding consistent with former research (Haddadi & Besharat, 2010; Lai & Mak, 2009; LaNoue, Graeber, Helitzer, & Fawcett, 2013; Liu & Xu, 2013; McLaughlin, Conron, Koenen, & Gilman, 2010; Peng et al., 2012; Tajalli et al., 2010)
- Equal but opposite magnitude of correlation between MSPSS/CD-RISC-10 and between MSPSS/ICSRLE and MSPSS/ ACEs, aligns with former findings (Haddadi & Besharat, 2010; Hefner & Eisenberg, 2009; Lai & Mak, 2009; Liu & Xu, 2013; Peng et al., 2012; Tajalli et al., 2010).

Discussion- Hypothesis 1

- Correlations of ACEs/CD-RISC-10 << both ACEs/ICSRLE and ACEs/MSPSS
- indicates a potential interaction of these variables on ACEs may exist.
- May be due to a buffering effect of MSPSS on ACEs and ICSRLE resulting in more favorable resilience rates, which remains indicative of the resilience process and congruent with previous research (Liu & Xu, 2013; Peng et al., 2012; Wilks, 2008; Wilks & Spivey, 2010)

Discussion- Hypothesis 2

- While the obtained *F*-value is large, this is a result of the equation for the *F* statistic (Nau, 2015).
  - Since the obtained adjusted R^2 = .55 value is high, the *F*-value will be higher. Further, given that the current sample size is large (*n* = 507) the *F* value is reasonably larger
  - $F = [R^2/k]/[(1-R^2)/(n-k-1)] = [R^2*(n-k-1)]/[k*(1-R^2)]$

(Tabachnick & Fidell, 2001)

Discussion- Hypothesis 2

- PGWBI was significantly predicted
  - ICSRLE > CD-RISC-10 > MSPSS
  - No ACEs significance
- Higher CD-RISC → Higher PGWBI, Higher MSPSS, Lower College Life Hassles, Lower ACEs
- Higher MSPSS → Higher PGWBI, Higher Resilience, Lower College Life Hassles, Lower ACEs
- Higher ICSRLE → Lower PGWBI, Lower Resilience, Lower MSPSS, Higher ACEs
- Higher ACEs → Lower PGWBI, Lower Resilience, Lower MSPSS, Higher College Life Hassles

Discussion- Hypothesis 2

- Results align with former findings in that higher levels of resilience are associated with better mental health outcomes, in specific regard to childhood adversities and current life hassles (DeRosier et al., 2013; Fergusson & Horwood, 2003; Hartley, 2012; Robinson et al., 2014)
- In accordance with Lai and Mak's (2009) results, the current findings show resilience significantly correlate with ICSRLE and with student psychological well-being. Lai and Mak noted an interaction effect between CD-RISC-10 and ICSRLE.
- Resilience > social support in its influence on mental health, in agreement with Liu and Xu (2013)

Discussion- Hypothesis 2

- In accordance with previous findings, the current study shows that life hassles have a higher correlation with mental health *than* social support, childhood adversities, *and* even resilience (Lai & Mak, 2009; LaNoue et al., 2013; Liu & Xu, 2013; McLaughlin et al., 2010; Peng et al., 2012; Tajalli et al., 2010)
- Current results show mental health is associated *more strongly* with current life hassles *than* childhood adversities as also indicated by LaNoue et al., (2013)

Discussion- Hypothesis 3

- Increased ACEs correlate with lower scores of both resilience and mental health.
  - Stronger between mental health and ACEs exists than between resilience and ACEs
    - Findings align with Nurius et al. (2012) & Campbell-Sills et al. (2006)
- Oldehinkel and Ormel (2015) indicate that the onset of a psychiatric disorder depends on the nature and immediate outcome of the ACE and the amount of time elapsed between the adversity and psychiatric disorder onset.
  - Onset of mental health concerns can range from months (McLaughlin et al., 2012; Schilling et al., 2007) to years (Teicher, Samson, Polcari, & Andersen, 2009)
  - Therefore, if college students are not presenting mental health concerns related to early life adversities it is less likely they will develop a psychiatric disorder.

Limitations

- Limitation of instrumentation
  - Few studies assessed ACEs using the ACEs Questionnaire, particularly in association with resilience and mental health
  - PGWBI may not measure the same construct of mental health as other studies because other studies used different instruments
  - Numerous measures of resilience have been used in association with ACEs and/or mental health, with no clear predominating measure
  - Lack of publications in this area so there is a lack of studies to which comparisons can be made.

Limitations

- Magnitude of ACEs Exposure
  - evaluated the number of ACEs as a continuous variable, not according to low versus high levels of adversity exposure.
  - The lack of investigation of ACEs exposure rates might have masked a potential difference in resilience and mental health among participants who had higher versus lower ACEs exposures
- True lack of significance in predicting resilience and mental health may be observed for the current prevalence rates of ACEs reported

Limitations

- Statistical Analysis Limitations
  - Using *simultaneous* multiple regression results in the other independent variables competing with ACEs for significance in predicting the model.
    - Might result in lowered significance values for ACEs in the prediction model than it may actually have
  - Use of hierarchical multiple regression might help reveal if ACEs does contribute significantly
    - if placed into the model before the other independent variables

Future Research

- Magnitude of ACEs Exposure
  - Question to answer is how low versus high levels of ACEs magnitude affect resilience and mental health
- Demographics Investigation
  - School Performance, Drug Use, Relationship Status, Family Socio-economic Status

Future Research

- Interaction Effects
  - Current study did not explore interaction effects between ACEs, social support, current life hassles, resilience, and mental health.
  - Future research should include studies using path analyses.
  - Would align with former studies

Implications of Research

- Results support the use of interventions promoting resilience and social support.
  - Screening for and promoting resilience and social support as part of interventions in university counseling centers may prove beneficial, in agreement with Hartley (2012).
- Additional screening for ACEs exposure and current life adversities may prove helpful in determining potential resilience and mental health outcomes.

Questions?

Questions for you: