

## What Doesn't Kill You: Correlates of Resilience Among Master of Social Work Students

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**Abstract:** *The purpose of this exploratory study was to examine the relationship between adverse childhood experiences (ACEs) and resilience in a sample (n=139) of Masters of Social Work (MSW) students. Perceived stress, religious faith, experiential avoidance, and mindfulness were also examined as correlates of resilience. Resilience scores for the MSW students were comparable to general population and college student norms, but ACEs and perceived stress scores were higher. Despite a broad literature supporting associations of high ACE scores with varied measures of physical and psychological problems, this study paradoxically showed a positive relationship between higher ACE scores and resilience. Regression analysis indicated a model including age, ACE scores, experiential avoidance, religious faith, and perceived stress explained 39.2 % of the variance in resilience scores. Prior adverse childhood experiences and stronger religious faith are associated with increased resilience, while experiential avoidance and perceived stress are associated with lower resilience. This study provides further evidence that many students come to social work education with substantial trauma histories and experience considerable stress during their studies. Results suggest that social work educators should acknowledge risks associated with avoidant coping, and provide learning experiences aimed at developing students' capacities for increased awareness and acceptance of challenging experiences—their own and others.*

**Keywords:** *Resilience, Adverse Childhood Experiences (ACEs), experiential avoidance, MSW students*

The concept of resilience, defined generally as the experience of having relatively good outcomes in the face of adversity (Rutter, 2007), has received considerable attention in the research literature. In light of greater understanding of the substantial risks involved in providing services to persons who are suffering or traumatized, researchers more recently have attempted to investigate resilience among helping professionals and trainees.

In the social work profession particularly, work-associated stress is high, with burnout, vicarious trauma, and compassion fatigue taking a significant toll on individual workers, on the clients they serve, and on the stability of the professional workforce (Bride & Figley, 2007; Grant & Kinman, 2012). Social work students also experience high levels of stress in both coursework and field placements (Carello & Butler, 2015; Grant & Kinman, 2012), but are often hesitant to speak about their stress to instructors and supervisors (Grant & Kinman, 2012). Additionally, the experience of prior trauma is fairly consistently considered a risk factor for the development of stress-related disorders among helping professionals (Zosky, 2013), and many, if not most, students in clinical training programs have experienced trauma (Carello & Butler, 2015, p. 263). Several studies have indicated

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that many social workers come to the profession with a personal history of adverse childhood experiences, and that those trauma histories may, in fact, have motivated them to enter the profession (Grant, 2014; Rompf & Royse, 1994).

With increasing awareness of the stressors faced by social work professionals and students, educators and researchers have begun to examine ways that resilience can be developed and enhanced during training. This study explored the associations between adverse childhood experiences and resilience, and also examined relationships between resilience and perceived stress, religious faith, experiential avoidance, and mindfulness among a sample of MSW students.

## Literature Review

### Resilience

We know that trauma does not invariably result in bad outcomes (DuMont, Widom, & Czaja, 2007; Yehuda & Flory, 2007); rather, there is great variability in responses to traumatic events (Rutter, 2013). About half of those who experience childhood physical or sexual abuse, for example, show positive psychosocial functioning in adulthood (Rutter, 2007). What makes one person able to endure significant adversity and survive, even grow, while another can experience the same event and suffer chronic, debilitating effects? Is it possible for individuals and organizations to develop strategies which contribute to resilient responses to adversity? The idea that people can thrive despite challenges, and that the capacity to do so can be developed or enhanced, is congruent with the strengths-based, person-in-environment focus of social work, and with the Recovery Model of mental health practice (Atkinson, Martin, & Rankin, 2009).

Resilience has been defined as “a dynamic process encompassing positive adaptation within the context of significant adversity” (Luthar, Cicchetti, & Becker, 2000, p. 543). Rutter (2007) described it as “the phenomenon that some individuals have a relatively good outcome despite suffering risk experiences that would be expected to bring about serious sequelae” (p. 205). Richardson’s (2002) model of resilience suggested that stressors or traumas challenge bio-psycho-spiritual homeostasis, resulting in disruptions in that homeostasis (depending on the interaction between stressors and existing protective factors). The individual’s worldview is then changed, requiring a reintegration of the new experiences. The result may be: *resilient reintegration* (posttraumatic growth), implying growth from the original homeostatic state; *reintegration back to the original state*, in which people just get through the crisis and back to their homeostatic state (but without growth); *reintegration with loss*, meaning that some motivation, hope or drive is lost as a result of the stressor; or *dysfunctional reintegration*, when people resort to various destructive behaviors to deal with the experience (Richardson, 2002).

Viewed as successful stress coping (Connor & Davidson, 2003), resilience is not a collection of personality traits, but a biopsychosocial process which can only be developed in the presence of adversity (Rutter, 2007). Resilience occurs in a complex ecological context (Greene, 2008) and involves reciprocal interactions between a person experiencing stress and his or her environments. It involves an intricate interplay of genetics and

environment, coping styles, and mental processes, and may depend on experiences that occur subsequent to risk exposure (Rutter, 2006, 2007). In short, what people *do* in response to the challenges they face matters (Rutter, 2007).

Various authors argue that within clinical training programs, including social work, more attention should be paid to developing intrapersonal, interpersonal, and organizational capacities that contribute to a more resilient and sustainable professional workforce (Grant & Kinman, 2012; Howard et al., 2015). Yet, information is limited regarding the types of experiences that contribute to resilient responses. According to Rutter (2013), stable and positive social relationships, social role satisfaction, and a sense of community all had positive associations with resilience. Particular emphasis was placed on “inoculation”, “steeling”, or “turning-point” experiences which involve exposure to manageable stressors and opportunities for successful coping, intentional self-reflection, and a sense of personal agency (Rutter, 2007, 2013). Kinman and Grant (2011) found trainee social workers who showed greater emotional intelligence, reflective ability, social confidence, and aspects of empathy were more resilient to stress. Wilks (2008) studied a sample of undergraduate and graduate social work students and found that social support was positively associated with resilience, and that social support from friends, specifically, moderated the negative relationship between academic stress and resilience. Kapoulitsas and Corcoran’s (2014) qualitative study indicated the complexity of various personal and organizational processes in the development of practitioner resilience, including the importance of supportive supervision and training and the development of professional wellness.

Although this current study does not examine social support or organizational/structural variables related to resilience, we wish to explicitly acknowledge the importance of these considerations. We agree with Grant and Kinman (2014) who caution against attempting simply to enhance the ability of clinicians to cope with difficult circumstances without also making needed institutional and structural changes in resources and organizational culture (p. 12).

### **Adverse Childhood Experiences**

The Adverse Childhood Experiences (ACEs) Study, a large prospective epidemiological study conducted in 1994 by the U.S. Centers for Disease Control and Kaiser Permanente Health Network, examined rates of childhood adverse experiences among over 17,000 Health Maintenance Organization participants coming in for routine wellness checks (Anda et al., 2006). The participants reported on 10 categories of adverse experiences occurring before age 18, including physical, emotional, and sexual abuse, emotional and physical neglect, domestic violence, parental separation or divorce, and mental illness, substance abuse, or incarceration of household members. The study found that most respondents had experienced at least one adverse event, and 12.5% had experienced four or more (Anda et al., 2006). Rates of childhood adverse experiences were strongly correlated with a remarkable variety of negative health and social outcomes in later life, including obesity, heart disease, anxiety, depression, substance abuse and interpersonal violence (Anda et al., 2006; Dube, Williamson, Thompson, Felitti, & Anda, 2004). ACEs can cause neurodevelopmental injuries and deficits (Anda et al., 2006;

Nurius, Green, Logan-Greene, & Borjaa, 2015), which then result in an increase in risk behaviors used to cope with trauma reactions, ultimately compromising healthy future adaptation.

The original ACE study has been replicated in various populations, and findings are beginning to shift our understanding of trauma and the multiple and cascading consequences of early adverse events (Center for Youth Wellness, 2013; Centers for Disease Control and Prevention, 2010). Efforts are increasing to incorporate the implications of the ACE study (and consequent trauma-informed practices) into organizations, policies, and provider networks (Larkin, Shields, & Anda, 2012). Researchers are beginning to examine adverse childhood experiences not just in clinical populations, but also among helping professionals, including social workers and social work students (Thomas, 2016). Esaki and Larkin (2013) looked at adverse childhood experiences among social workers employed at a residential child service agency serving traumatized children, and found much higher ACE scores than those reported in the original ACE study. For example, 27.6% of the child service workers had ACE scores of 4 or more, compared with only 12.5% in the general population sample. Howard and colleagues (2015), in a study of 192 social workers providing services to children in foster care, examined the relationship between professional quality of life, adverse childhood experiences, resilience, and work environment. This study again showed higher rates of ACEs among these workers than in the general population (25.1% vs. 12.5% with ACE scores of 4 or more). However, contrary to expectations, higher ACE scores predicted greater compassion, satisfaction, and reduced risk for burnout (Howard et al., 2015).

Several other studies have examined trauma histories among social work students, though few have used the exact criteria from the Adverse Childhood Experiences Study. Black, Jeffreys, and Hartley (1993) found that MSW students reported a significantly higher frequency of family trauma than did the comparison group of MBA students, and Rompf and Royse (1994) found that social work students reported significantly more marital discord, familial emotional problems, and alcohol or drug addiction in their families of origin than did a comparison group of students in English classes. Dykes (2011) reported 73% of social work students in her sample had experienced adverse childhood experiences.

### **Additional Variables**

**Perceived Stress.** Stress occurs when the resources of an individual are insufficient to manage existing demands (Lazarus & Folkman, 1984). The prevalence of stress is increasing among college students, and the perception of stress influences adjustment to academic life and academic success (Friedlander, Reid, Shupak, & Cribbie, 2007; Robotham & Julian, 2006). Relatively high levels of perceived stress are found among graduate students in general, and MSW students in particular (Addonizio, 2011; Collins, Coffey, & Morris, 2010).

Graduate students participate in the full complement of adult life stressors, including financial and employment worries, relationship conflicts, and family and health concerns. Additionally, Grant and Kinman (2012) suggest that social work students may face stressors beyond those faced by other graduate students because of the complex and

emotionally demanding content within the curriculum and field placements, and also may be more reluctant to disclose their stress and seek assistance. Previous studies have shown significant associations between perceived stress and resilience in college student and general adult populations (Abdollahi, Talib, Yaacob, & Ismail, 2014; Abolghasemia & Varaniyaba, 2010; Moore et al., 2015; Mroz, 2015; Seyedfatemia, Pourafzalb, Inanlooc, & Haghani, 2015; Willis & Burnette, 2016).

**Religious Faith.** According to Canda, Nakashima and Furman (2004), the majority of social work students, faculty, and practitioners see religious faith and spirituality as important to themselves and their clients. Religion is defined as “an organized, structured set of beliefs and practices shared by a community related to spirituality” (p. 28), while spirituality is broader and reflects a search for meaning and purpose in life and a morally fulfilling connection to self and others (Canda et al., 2004). Religious faith is increasingly associated with a variety of health benefits (Plante, Vallaeys, Sherman, & Wallston, 2002), including hardiness and self-esteem (Kamya, 2000), lowered depression in older adults (Koenig, George, & Peterson, 1998), and resilience among persons in substance abuse recovery (Pardini, Plante, Sherman, & Stump, 2000). Religious faith and spirituality may buffer the impact of stress in both MSW (Lee, 2007) and psychology students (Brown, 2012) and has been positively correlated with resilience (Eriksson & Yeh, 2012; Javanmard, 2013).

**Experiential Avoidance.** Traumatic states can be perpetuated by maladaptive coping strategies which, though aimed at protecting the self, actually keep the traumatized person stuck in negative patterns of thinking and behaving leading to problems in flexible and adaptive self-regulation (Wells & Sembi, 2004). These coping strategies include vigilant attention to threat, worry and ruminative thinking, and attempts to suppress or avoid thoughts and reminders of the trauma. The latter strategy, experiential avoidance, is especially relevant in examining vulnerable or resilient responses to trauma.

Experiential avoidance is described as an unwillingness to experience thoughts, memories, emotions, and bodily sensations, even when doing so interferes with quality of life (Hayes, Wilson, Gifford, Follette, & Strosahl, 1996). Experiential avoidance reduces psychological flexibility (Boulanger, Hayes, & Pistorello, 2009) and is associated with lowered functioning in both clinical and non-clinical populations and a broad range of psychological and behavioral problems, including depression, anxiety, substance abuse, and post-traumatic stress disorder (PTSD) symptoms (Boulanger et al., 2009; Thompson, Arnkoff, & Glass, 2011). Bond and colleagues (2011) similarly found that greater experiential avoidance is associated with increased symptoms of anxiety, stress, depression, thought suppression and psychological distress, and suggest that it may increase risk for mental health problems. Campbell-Sills, Cohan, and Stein (2006) found associations between experiential avoidance and lowered resilience, and Boulanger and colleagues (2009) cite several longitudinal studies examining the *predictive* power of experiential avoidance for later development of psychopathology and argue that strategies of avoidance may prevent healthy resolution of traumatic experience and predict disordered responses such as PTSD.

**Mindfulness.** Mindfulness is most commonly defined as “paying attention in a particular way: on purpose, in the present moment, and nonjudgmentally” (Kabat-Zinn, 1994, p. 4) and involves an ability to pay attention to what is occurring in the present moment, in which the person is able to simply observe what is taking place, without filtering events through cognitive appraisals, evaluations, memories, beliefs, etc. (Brown & Ryan, 2003). Mindfulness is associated with greater psychological adjustment following trauma (Thompson et al., 2011), improved academic performance (Shapiro, Brown, & Astin, 2008), and increased resilience among social work students (Roulston, Montgomery, Campbell, & Davidson, 2017) and professional social workers (Crowder & Sears, 2017; Kemper, Mo, & Khayat, 2015). Mindfulness has also been linked to improved stress coping, decreased rates of burnout, and greater compassion satisfaction among healthcare workers, physicians, and social workers (Galantino, Vaime, Maguire, Szapary, & Farrar, 2005; Krasner et al., 2009; Thomas, 2013).

### **Current Study**

Many MSW students come into their training with histories of adverse experiences, and then encounter additional stressors as they complete academic and field education. Resilience is not fixed and static, and may be influenced by experiences both prior to and following stressful events. Given this, it is important that social work educators understand factors associated with resilience in order to do the best job possible in preparing students for sustainable careers. Resilience can be learned, and social work education should place explicit focus on ways to better develop resilient practitioners (Beddoe, Davys, & Adamson, 2013).

We know that the *meaning* people make of their experiences can be critical in how they cope with traumatic and stressful events (Calhoun & Tedeschi, 2013). There is evidence that the ability to acknowledge and reflect on experiences is important to meaning-making, and is an important factor in the development of resilience (Rutter, 2013; Kinman & Grant, 2011). This study examined relationships between resilience and several factors which may influence how MSW students cope with, interpret, and ultimately respond to challenges they have experienced or are currently experiencing. Based on the review of the literature cited above, we hypothesized the following:

- 1) ACE scores for this sample of MSW students would be higher than those reported in general population and college samples described earlier;
- 2) Higher ACE scores would be associated with lower resilience scores;
- 3) Higher perceived stress scores would be associated with lower resilience scores;
- 4) Higher scores on religious faith would be associated with higher resilience scores;
- 5) Higher experiential avoidance scores would be associated with lower resilience scores; and
- 6) Higher mindfulness scores would be associated with higher resilience scores.

## Method

### Sample and Procedures

This study used cross-sectional data to explore the relationship of resilience with adverse childhood experiences, perceived stress, religious faith, experiential avoidance, and mindfulness in a convenience sample of 139 Master of Social Work (MSW) students at a regional university in the western United States. After receiving approval from the University Institutional Review Board, anonymous surveys consisting of demographic questions and 6 established scales measuring resilience, adverse childhood experiences, perceived stress, religious faith, experiential avoidance, and mindfulness were distributed to MSW student volunteers in 2015. One hundred and thirty-nine students (93.2%) chose to complete the cross-sectional survey. An analysis of the ACE prevalence data with a portion of this sample was previously reported (Thomas, 2016). Participants were drawn from both 2-year and 3-year MSW cohorts, and were concurrently completing internships in community field placements for 16-20 hours per week. Students were offered a \$5 gift card for participation, and were provided with informed consent documents regarding procedures to protect confidentiality and assurances that there would be no consequences if they chose not to participate.

The final sample consisted of 139 MSW students (see Table 1). Eighty-one percent of students were younger than 35, and about 82% were female. Less than half were White/Caucasian/European and 32% were Hispanic/Latino, with other categories making up the other 23%.

Table 1. *Demographics of Participants (n=139)*

Characteristics	n	%
<b>Gender (n=138)</b>		
Female	113	81.9%
Male	25	18.1%
<b>Race/Ethnicity (n=138)</b>		
Alaskan Native/American Indian/First nation	3	2.2%
Asian/Asian American/Pacific Islander	16	11.6%
Black/African American	7	5.1%
Hispanic/Latino	45	32.6%
White/Caucasian/European	62	44.9%
Other/Mixed	5	3.6%
<b>Age (n=139)</b>		
<25	35	25.2%
25-34	78	56.1%
35-44	19	13.7%
45-54	5	3.6%
>54	2	1.4%

## Survey Instrument

The survey instrument consisted of 13 demographic questions; 6 established scales measuring resilience, adverse childhood experiences, perceived stress, religious faith, experiential avoidance, and mindfulness; and questions related to career motivation and coping (not addressed in the present article). Resilience is considered the primary outcome variable in this study. Scores for ACEs, perceived stress, religious faith, experiential avoidance, and mindfulness are included as correlates. See Table 2 below for scale properties.

**Resilience.** The Connor-Davidson-Resilience Scale, CD-RISC 25 (Connor & Davidson, 2003) was used to measure resilience. The CD-RISC contains 25 items rated on a 5-point Likert scale from 0 to 4, with a total summed score range of 0 to 100 with higher scores indicating greater resilience. The scale has been translated into many different languages and studied in a variety of populations, with multiple studies demonstrating validity and reliability of the measure (CD-RISC, n.d.). Cronbach's Alpha in this study was  $\alpha = .88$ .

**Correlates.** Five variables are included as potentially relevant correlates to resilience. These include ACEs, perceived stress, religious faith, experiential avoidance, and mindfulness.

**ACEs.** The Adverse Childhood Experiences (ACEs) questionnaire (Felitti et al., 1998) consists of 10 items inquiring about physical, emotional, and sexual abuse; emotional and physical neglect; domestic violence; parental separation or divorce; and mental illness, substance abuse, or incarceration of household members. The measure has been validated in subsequent studies (Dube et al., 2004; Esaki & Larkin, 2013). One point is assigned for each category of adverse experience endorsed, with a range of total scores between 0 and 10. Cronbach's Alpha in this study was  $\alpha = .77$ .

**Perceived stress.** The Cohen Perceived Stress Scale 10 (PSS-10) measures "the degree to which individuals appraise situations in their lives as stressful" (Cohen, Kamarck, & Mermelstein, 1983, p. 385). The PSS demonstrated adequate reliability and correlated with life-event scores, depressive and physical symptomatology, utilization of health services, social anxiety, and smoking-reduction maintenance (Cohen et al., 1983). The measure uses a 5-point Likert scale ranging from 0-4, with several reverse-scored items. Total scores range from 0-40, with higher scores indicating greater perceived stress. Cronbach's Alpha in this study was  $\alpha = .86$ .

**Religious faith.** The Brief Santa Clara Strength of Religious Faith Questionnaire (BSCSRFQ, Plante et al., 2002) is a 5-item scale measuring religious belief and involvement, strongly correlated with the longer 10-item scale found to be reliable and valid (Plante et al., 2002). The scale uses a 4-point Likert scale with total scores ranging from 5-20. Higher scores indicate greater strength of religious faith. Cronbach's Alpha in this study was  $\alpha = .95$ .

**Experiential avoidance.** The Acceptance and Action Questionnaire II (AAQ II) is a 7-item scale measuring psychological inflexibility, or experiential avoidance, which is an important predictor of psychological distress and behavioral ineffectiveness (Bond et al.,

2011). The AAQ II uses a 7-point Likert scale with total scores ranging from 7-49. Higher scores indicate greater psychological inflexibility or experiential avoidance. Cronbach's Alpha in this study was  $\alpha = .91$ .

**Mindfulness.** The Mindful Attention Awareness Scale (MAAS) is a 15-item scale designed to assess individual differences in the frequency of mindful states over time (Brown & Ryan, 2003). The scale has been shown to have excellent psychometric properties. It uses a 6-point Likert scale with scores ranging from 1 to 6. A mean score is calculated, thus total scores range from 1-6 with higher scores indicating greater mindfulness. Cronbach's Alpha in this study was  $\alpha = .89$ .

Table 2. *Scale Properties*

Scale*	Number of items	Possible Range of scores	$\alpha$ (in current study)	Mean	SD
CD-RISC 25	25	0-100	0.88	77.46	9.88
ACEs	10	0-10	0.77	3.04	2.51
PSS-10	10	0-40	0.86	18.29	6.19
BSCSRFQ	5	5-20	0.95	12.01	5.96
AAQII	7	7-49	0.91	19.02	8.47
MAAS	15	1-6**	0.89	3.99	0.89

\*Resilience (CD-RISC 25), ACEs, Perceived Stress (PSS-10), Religious Faith (BSCSRFQ); Experiential Avoidance (AAQ II), and Mindfulness (MAAS)

\*\*mean score

## Data Analysis

Variables were examined for normality, homogeneity of variance, and linearity. Skew and kurtosis statistics indicated that data were normally distributed and examination of tolerance and variance inflation factors indicated no problems with collinearity for study variables included in the regression analysis. Descriptive statistics, bivariate correlations, *t* tests, analysis of variance tests, and multiple linear regression were used to examine the data.

## Results

### Comparisons with Previously Normed Scores

Mean scores for MSW student participants in this study were similar to previously normed scores (or to comparison scores in studies examining similar populations) for all variables except ACEs and perceived stress (see Table 3).

### Prevalence of ACEs

Almost 38% of the MSW students in this study reported 4 or more ACEs. Only one-fifth reported no adverse childhood experiences (see Table 4). The most frequently cited ACEs were emotional abuse (46%), parental divorce/separation (43.9%), and substance abuse by a household member (41%). More than a third of participants (36.7%) reported emotional neglect, and 32.4% of participants reported mental illness in their families.

Almost one-fourth reported a history of childhood sexual abuse. Table 5 indicates the percentage of students endorsing each of the adverse experience categories included in the ACE study.

Table 3. *Resilience, ACE, Perceived Stress, Religious Faith, Experiential Avoidance, and Mindfulness Scores and Comparisons*

Scale	Mean (SD)		Notes on Population or scale	Source of Comparison Score
	Current Study	Comparison Scores		
Resilience (CD-RISC 25)	77.46 (9.88)	80.4 (12.8) 72.9 (13.5)	US gen pop College students	CDRISC Users' Guide (n.d.)
ACEs	3.04 (2.51)	2.18 (2.13)	human services providers	Howard et al., 2015
Perceived Stress (PSS-10)	18.29 (6.19)		13 considered average; 20 > considered high stress	Cohen et al., 1983
Religious Faith (BSCSRFQ)	12.01 (5.96)	13.56 (4.46)		Plante et al., 2002
Experiential Avoidance (AAQII)	19.02 (8.47)	18.51 (7.05) 28.3 (9.9)	Non clinical pop Clinical pop	Bond et al., 2011
Mindfulness (MAAS)	3.99 (0.89)	4.20 (0.69) 3.83 (0.70)	Community adults (4 samples) College students (14 independent samples)	Brown & Ryan, 2003

Table 4. *ACE Scores (n=139)*

Number of ACES	n	%	Cumulative %
None	29	20.9	20.9
One	20	14.4	35.3
Two	19	13.7	49.0
Three	17	12.2	61.2
Four	9	6.5	67.7
Five	13	9.4	77.1
Six	16	11.5	88.6
Seven	7	5	93.6
Eight	4	2.9	96.5
Nine	3	2.2	98.7
Ten	0	0	98.7
Missing	2	1.3	100.0

Table 5. *Number and Percentage of Students Endorsing Each Item (n=139)*

ACE Category	n	%
Physical Abuse	50	36.0
Emotional Abuse	64	46.0
Sexual Abuse	33	23.7
Physical Neglect	17	12.2
Emotional Neglect	51	36.7
Household Mental Illness	45	32.4
Family Violence	26	18.7
Parental Divorce/Separation	61	43.9
Household Member Incarceration	17	12.2
Household Substance Abuse	57	41.0

### Bivariate Correlations

Table 6 presents zero-order correlation coefficients for all continuous variables. Resilience was moderately correlated with perceived stress, experiential avoidance, and mindfulness (all at the  $p < .001$  level) and weakly correlated with ACEs and religious faith ( $p < .05$ ). Additionally, perceived stress was moderately correlated with experiential avoidance ( $p < .001$ ) and mindfulness ( $p < .001$ ). Experiential avoidance was also correlated with mindfulness ( $p < .001$ ) and ACEs ( $p < .05$ ).

Table 6. *Correlations among Predictor Variables and Resilience*

Variable	1.	2.	3.	4.	5.	6.
1. Resilience	1					
2. ACE	.180*	1				
3. Stress	-.471***	-.021	1			
4. Religious faith	.213*	.068	-.032	1		
5. Exp. Avoidance	-.471***	.173*	.595***	-.471***	1	
6. Mindfulness	.337***	.055	-.463***	.098	-.482***	1

\* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$

### Analysis of Variance and T-tests

For descriptive purposes, analysis of variance and t-tests were included to examine any influence of demographic variables of age, race/ethnicity, and gender on study variables. One-way analysis of variance (ANOVA) tests were used to examine four different age categories (<25, 25-34, 35-44, and 45+) in relation to other variables. For the purposes of this test, the 45-54 and > 54 age categories were combined because there were too few cases in the >54 category. ANOVA testing showed that the effect of different age categories was not significant in predicting ACE scores, religious faith, experiential avoidance, resilience, or mindfulness. Age was a significant predictor of perceived stress,  $F(3, 132) = 3.233, p < .05$ , with younger students reporting higher levels of stress than older students. Fisher's Least Significant Difference (LSD) post-hoc tests indicated students in the age category <25 ( $M=18.94, SD=5.96$ ) and 25-34 ( $M=19.03, SD=5.79$ ) had significantly higher mean total perceived stress scores ( $p < .05$ ) than students in the category 35-44 ( $M=15.50, SD 6.71$ ) or 45+ ( $M=13.71, SD=5.44$ ).

ANOVA testing was also used to look at the four different race/ethnicity categories in relation to other variables in the study. The "Alaskan Native/American Indian/ First Nations" category ( $n=3$ ) was combined with the "Other/Mixed" category ( $n=5$ ) for statistical analysis. None of these tests were significant.

Independent samples *t*-tests were conducted to compare male and female responses to all continuous variables. No significant differences were found based on gender.

### Regression Analysis

A three step hierarchical multiple regression was conducted with resilience as the dependent variable (see Table 7). Age was entered at step one of the analysis, given the

ANOVA results suggesting age was the only demographic variable significantly related to any of the other correlates. ACE scores were then entered at step two, based on the hypothesized relationship between ACE scores and resilience. The remaining variables, perceived stress, religious faith, experiential avoidance, and mindfulness were entered at step 3.

Step 1, containing age only, explained only about 3% of the variance,  $F(5, 124) = 3.900$  ( $p = .050$ ). The model for Step 1 was just short of reaching the  $p < .05$  significance level, with an  $R^2 \Delta$  of .03. Step 2 added ACE scores; that model was significant,  $F(2, 123) = 3.413$ ,  $p < .05$ , with an  $R^2 \Delta$  of .022 ( $p < .05$ ). The total model (age and ACEs) explained about 5.3% of the variance in resilience scores. Step 3 added the four additional correlates of perceived stress, religious faith, experiential avoidance, and mindfulness. This final model was significant,  $F(6, 119) = 12.781$ ,  $p < .001$ , and explained over 39% of the variance in resilience scores, with an  $R^2 \Delta$  of .339 ( $p < .001$ ). All of the variables in the final model except age and mindfulness made significant individual contribution to the model predicting resilience, including ACEs ( $\beta = .204$ ,  $p < .01$ ); perceived stress ( $\beta = -.229$ ,  $p < .05$ ); religious faith ( $\beta = .203$ ,  $p < .01$ ); and experiential avoidance ( $\beta = -.349$ ,  $p < .001$ ). Religious faith was positively associated with resilience, and both perceived stress and experiential avoidance were negatively associated with resilience. Contrary to expectations, however, ACEs were associated with greater resilience and mindfulness was not significantly associated with resilience at all.

Table 7. Hierarchical Regression Predicting Resilience

Variable	Model 1			Model 2			Model 3		
	B	SE B	$\beta$	B	SE B	$\beta$	B	SE B	$\beta$
Age	2.143	1.085	.175	1.805	1.095	1.47	.336	.917	.027
ACEs				.594	.351	.151	.802	.293	.204**
Perceived stress							-.365	.149	-.229*
Religious faith							.337	.119	.203**
Exp. Avoid.							-.407	.110	-.349***
Mindfulness							.816	.926	.074
R2		.030			.053			.392	
R2 change		.030			.022*			.339***	

\* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$

## Discussion

The results of this study support several of the hypotheses (1, 3, 4, and 5) regarding the prevalence of adverse childhood experiences among MSW students, and the associations of perceived stress, religious faith, and experiential avoidance with resilience. However, hypothesis 2, indicating that higher ACE scores would be associated with lower resilience scores, and hypothesis 6, suggesting that higher mindfulness scores would be associated with greater resilience, were not supported.

### **Prevalence of ACEs and Comparisons with Previously Normed Scores**

Reported rates of ACEs were much higher among this sample of MSW students than those reported in previous studies, supporting Hypothesis 1. Most studies using the ACEs questionnaire have not reported a mean score, but rather have commonly listed the percentage of participants with various total scores, often using scores of “4 or more” for comparison. Almost thirty-eight percent of the MSW students in the current study had ACE scores of 4 or more, compared to 12.5 % in a general population sample (Felitti et al., 1998); 12.4% in a university student sample (McGavock & Spratt, 2014); 27.6% with child care workers (Esaki & Larkin, 2013); and 25.1% with foster care workers (Howard et al., 2015). Despite expectations that the student sample would show high ACE scores, these results are sobering.

### **Associations with Resilience**

Four variables in the current study showed a significant relationship with resilience, including ACE score, perceived stress, religious faith, and experiential avoidance. Contrary to expectations that a history of trauma in childhood would be associated with lowered resilience scores, higher ACE scores were actually associated with greater resilience ( $p < .01$ ).

**ACES.** Several previous studies have reported that social workers tend to enter their professional training with high rates of adverse life experiences (Black et al., 1993; Dykes, 2011; Rompf & Royse, 1994). Results of this current study certainly support this finding. Compelling evidence links ACE histories with negative health and social outcomes in adult life (Anda et al., 2006; Dube et al., 2004), and trauma history has generally been viewed as a potential risk factor in terms of MSW students’ vulnerability to mental health issues, truncated careers, and compromised therapeutic practice with clients. However, the implications of such trauma histories for social work students and professionals remain unclear (for more detailed discussion, see Thomas, 2016). Marcus and Dubi (2006) found that prior histories of trauma did not predict depression, anxiety, burnout, or compassion fatigue among mental health professionals, and Howard et al. (2015) found that higher ACE scores among foster care workers were actually associated with reduced risk for burnout and greater compassion satisfaction. Hypothesis 2 is not supported.

There are a number of possible explanations for this finding regarding ACEs and resilience. Rutter (2007, 2013) states that resilience can only be developed within the experience of adversity. The positive association between ACEs and resilience found in this study may reflect the “steeling” or “turning point” effects (see Rutter, 2006, p. 1; 2013, p. 477) that can sometimes occur as a result of past trauma. Alternately, or additionally, it is possible that at least among the subset of students who had experienced trauma and yet were successful in pursuing graduate education, such difficult experiences resulted in a strengthening of purpose to help others who face similar challenges. Howard and colleagues’ (2015) finding that higher ACEs were associated with greater compassion satisfaction supports this explanation.

**Experiential Avoidance.** Of all the variables in the model, experiential avoidance was most strongly associated with resilience. Higher experiential avoidance scores predicted

lower resilience, supporting hypothesis 5. Consistent with prior research on avoidant coping (Boulanger et al., 2009; Thompson et al., 2011), these findings suggest that persons who adopt cognitive strategies aimed at suppressing or avoiding reminders of difficult experiences may struggle *more* than those who are able to acknowledge and accept their experiences. This makes sense in light of research suggesting the importance of reflection in resilient processing of trauma (Kinman & Grant, 2011; Rutter, 2013) and the emphasis on meaning-making as a critical factor in the metabolism and transformation of traumatic experiences (Calhoun & Tedeschi, 2013; McCann & Pearlman, 1992).

**Perceived Stress.** The general population average score for the PSS-10 is 13, with scores of 20 or more indicating high stress (Cohen et al., 1983). Student scores in this study ( $M=18.29$ ,  $SD 6.19$ ) did not quite reach the cut-off for “high-stress,” but were well above the population norm of 13. This is congruent with previous research indicating that graduate students in general, and social work graduate students in particular, experience relatively high levels of stress (Addonizio, 2011; Grant & Kinman, 2012).

Perceived stress was also negatively associated with resilience, supporting hypothesis 3. While a certain amount of stress is needed for optimal functioning, high levels of current stress challenge coping capacities (Lazarus & Folkman, 1984). Past trauma and significant childhood distress (as measured by the ACEs questionnaire) were correlated with increased resilience, but current distress was correlated with decreased resilience, suggesting perhaps that time, psychological processing, and/or meaning-making modifies the impact of distressing events. Bivariate analysis indicated a strong positive correlation between perceived stress and experiential avoidance (and a negative correlation with mindfulness) again indicating that avoidant coping may contribute to greater perception of stress among MSW students. These results also suggest that, within social work education, strategies aimed at helping students develop more adaptive coping skills focused on awareness and acceptance may be helpful.

**Religious Faith.** Finally, religious faith was positively, though weakly, associated with resilience, supporting hypothesis 4. Previous reports regarding the effects of religious faith and spirituality on coping in the general population (Plante et al., 2002) and particularly among social workers and students (Canda et al., 2004) suggest multiple benefits from religion/spirituality. As mentioned previously, the *meaning* people make of challenging life experiences is important and will likely shape consequent responses, and “plentiful evidence” suggests that, for persons who have experienced trauma, religious faith and/or spirituality can be helpful in understanding, interpreting, and coping with subsequent difficulties (Calhoun & Tedeschi, 2013, p. 128).

**Mindfulness.** It was surprising that mindfulness was not significantly associated with resilience in the regression model. However, though some mindfulness measures are multifactorial, the measure of mindfulness used in this study (MAAS) measures the single-factor of receptive, open, and non-evaluative awareness, and may have overlapped with the constructs measured in the experiential avoidance measure (AAQ II). Hypothesis 6 was not supported.

### **Limitations**

There are a number of limitations to this study, including the relatively small, non-random sample from one regional university. Additionally, the study relies on self-report data, and despite efforts to assure anonymity, it is impossible to rule out a social desirability bias in the responses. Causality cannot be determined due to the cross-sectional research design used in this study. As previously mentioned, the present study did not include information regarding the influence of relationships, social support, or other institutional, organizational, or cultural factors on resilience. All of these factors, in addition to the intrapersonal factors measured in the present study, likely have a significant influence on the resilience of individuals. Finally, risk of type I errors is inflated given the multiple comparisons completed in the study. Future studies should include larger and more diverse sample sizes, and more robust analytical methods such as structural equation modeling which might better handle any measurement error, allow for testing multiple models and paths, and provide a more accurate examination of the relationship between variables.

### **Implications for Social Work Education**

This study provides further evidence that MSW students experience significant stress during their graduate studies, and that many come into social work education with substantial trauma histories. However, it also provides surprising evidence that those trauma histories may have actually contributed to greater resilience, and suggests that social work educators rethink assumptions that such histories are necessarily problematic.

Further, the results suggest that an ability to face difficult or painful experiences with awareness and acceptance, rather than engage in strategies of experiential avoidance, may be important in strengthening resilient responses. Regardless of whether students have had previous trauma histories themselves, we know that indirect exposure to trauma in classes and field experiences can contribute to vicarious traumatization in students (Carello & Butler, 2015).

In the spirit of informed consent and evidence-based intervention, it is important that social work educators explicitly provide information to students regarding trauma exposure and effects, whether past, current, or future. Students should understand that what they do (or don't do) in response to stressful and traumatic experiences matters a great deal.

In addition to didactic information about trauma, secondary trauma, and professional resilience, it is important that social work educators create learning experiences that help *all* students increase affective awareness of emotional responses that may be challenging, whether in response to prior or current stressors, or counter-transference experiences with clients. Social work educators can provide solid research information about the problems associated with avoidant coping, discuss the ethics of addressing issues that might impair future professional functioning, and help students with strategies for managing their experiences. These strategies might include additional opportunities for discussion and reflection about challenging or triggering experiences, as well as pro-active development/rehearsal of evidence-based mindfulness and acceptance skills. Without engaging in therapy or getting overly involved in student's personal lives, social work educators can provide classroom experiences and field supervision aimed toward

supporting students as they acknowledge, reflect on, accept, and cope with their difficult experiences (rather than suppressing or avoiding them). Educators can also ensure that students are aware of local university or/and community counseling/therapy or other supportive resources.

Based on research suggesting that social work students are often reluctant to speak to teachers and supervisors about their distress (Grant & Kinman, 2012), we may need to recalibrate our expectations and approaches regarding how to encourage students to use more strengths-based and adaptive ways to manage their stressful and traumatic experiences. Providing repeated opportunities for such cognitive and affective experiences early in the training of helping professionals is important (Calhoun & Tedeschi, 2013; Rutter, 2006) and should be an explicit focus in social work education (Carello & Butler, 2015; Grant & Kinman, 2012).

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