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By: **R. Jason Lynch** and Chris R. Glass

Abstract

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Innovation in Research and Scholarship Feature

The Development of the Secondary Trauma in Student Affairs Professionals Scale (STSAP)

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*College student affairs professionals increasingly act as first responders to student crises. This article describes the development and validation of an instrument designed to measure symptoms of secondary trauma within a sample of student affairs professionals (*n *= 617). Using exploratory and confirmatory factor analysis, the instrument and its subscales were found to demonstrate evidence of validity and reliability. Authors discuss implications for research and practice regarding secondary trauma in student affairs.*

Since the codification of the Student Personnel Point of View in 1937, college student affairs personnel have played a crucial role in student development, support, and success (American Council on Education Studies, 1937). Today, these professionals have found themselves increasingly acting as first responders to student crises (ACHA, 2016; Kraft, 2011; Stoves, 2014), including, severe mental health episodes (Suicide Prevention Resource Center, 2014), sexual assaults (RAINN, 2016), and incidents of campus violence (Mayhew, Caldwell, & Goldman, 2011). Research on social workers (Bride, Robinson, Yegidis, & Figley, 2004), K–12 educators (Hydon, 2015), and counselors (Galek, Flannelly, Greene, & Kudler, 2011) described the negative effects of repeated exposure to—or hearing second-hand details of—traumatic events on the well-being of helping professionals. Figley (1999) described this phenomenon as *secondary traumatic stress*, or "stress resulting from helping or wanting to help a traumatized or suffering person" (p. 10), a condition which meets the Diagnostic and Statistical Manual for Mental Disorders (DSM-V) qualifications for post-traumatic stress disorder (American Psychiatric Association, 2013). Given the increasing role of student affairs professionals as first responders to student crises, the prevalence and severity of secondary traumatic stress among student affairs professionals is a critical area of concern for research and practice. Yet, to date, no instrument exists that attempts to empirically analyze secondary traumatic stress as it relates to student affairs work. By having an instrument at hand, practitioners in various roles may be able to quickly assess themselves or their staff members in order to make data-driven decisions as to how to distribute workloads and provide assistance to student-support professionals.

In this study, we sought to develop and test the reliability of the Secondary Trauma in Student Affairs Professionals Scale (STSS) to identify the prevalence and severity of symptoms of secondary trauma that student affairs professionals may experience as a result of their exposure to student crises. Specifically, we examined the following questions: To what extent are the

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instrument and its subscales internally consistent? To what extent do individual items of the instrument represent PTSD criteria of intrusive thoughts, avoidance, negative alterations to mood or cognition, and arousal and reactivity, as suggested in the DSM-V? We believe this is a vital first step to begin a dialogue about the impact of secondary trauma on student affairs professionals.

Trauma and Higher Education

DSM-V sets relatively conservative boundaries for defining traumatic events, requiring that such events directly threaten the life, or be perceived to directly threaten the life, of the individual experiencing the trauma (American Psychiatric Association, 2013). Scholars have emphasized that traumatic events may include cumulative, proximal, and repeated exposures to events that threaten the life, bodily integrity, or sanity of an individual (Harvey, 1996; Myhra & Wieling, 2014; Weathers & Keane, 2007). For the purposes of this study, researchers defined *trauma* as "the unique individual experience of an event or enduring conditions, in which the individual's ability to integrate his/her emotional experience is overwhelmed, or the individual experiences (subjectively) a threat to life, bodily integrity, or sanity" (Pearlman & Saakvitne, 1995, p. 60). This definition encompasses a myriad of student traumas identified in higher education literature, including mental health disorders, sexual assault, death of loved ones, hate crimes and discrimination, substance abuse, and natural (or man-made) disasters (Silverman & Glick, 2010). We briefly overview research related to these types of traumatic events below.

Although student affairs professionals have focused on student mental health for decades (Robertson, 1966; Thwing, 1926), universities report a significant increase in the prevalence and severity of student mental health issues (ACHA, 2016; Center for Collegiate Mental Health, 2016; Kraft, 2011). Despite this increase, colleges and universities are not funding counseling centers to hire a sufficient number of mental health professionals to support this population of students (Kay, 2010). As a result, student affairs professionals increasingly act as first responders to students with a range of mental health conditions; examples may include anxiety, schizophrenia, depression, and bipolar disorder (Reynolds, 2009a), in addition to suicide, which remains a leading cause of death among college students in the U.S. (Reynolds, 2009b; Suicide Prevention Resource Center, 2014).

Sexual violence is also a concern on college campuses. A national study conducted by the U.S. Department of Justice reported that 1 in 5 women have experienced sexual violence as an undergraduate student (Fisher, Cullen, & Turner, 2010). Survivors of sexual violence often experience stress related mental health issues, including PTSD (Wilson & Scarpa, 2017). In the process of investigating reports of sexual violence, helping professionals, including student affairs staff, are exposed to graphic accounts of sexual violence (Ali, 2011; Gardella et al., 2015).

Additionally, student affairs professionals must often come to the aid of students who are the victims of hate crimes—directly or indirectly—such as nooses being hung in residence halls, fraternity themed parties that mock racial identities (Hughes, 2013), or racial bias in the classroom (Gershenson, Holt, & Papageorge, 2016). Race-related stress has been linked with negative self-esteem, concentration difficulties, and increased risk for mental and physical illnesses (Carter, Reynolds, & Zarate, 2011; Pieterse, Carter, Evans, & Walter, 2010).

Although much is known about the prevalence and severity of the effects of traumas on the primary victim, little is known about the secondary effect these traumas have on the student affairs professionals charged with supporting them. It is critical to understand the prevalence and severity of symptoms associated with secondary trauma that may be experienced while working as a college student affairs professional.

Post Traumatic and Secondary Traumatic Stress

While the concept of secondary traumatic stress is not directly named within the DSM-V, the effects of this phenomenon are described under criteria for PTSD. Table 1 contains a summary of symptoms that are associated with the development of secondary traumatic stress (American Psychiatric Association, 2013, p. 271). In order to be clinically diagnosed, the outlined symptoms must occur for at least one month after exposure to the initial event and cannot be attributed to substances such as drugs, alcohol, or other medications.

Secondary Trauma in Helping Professions

Graf, Sator, and Spranz-Fogasy described helping professions as "a professional interaction between a helping expert and a client, initiated to nurture the growth of, or address the problems of a person's physical, psychological, intellectual or emotional constitution, including medicine, nursing, psychotherapy, psychological counseling, social work, education or coaching" (2014, p. 7). People who choose careers in the helping professions expect to interact with people who have experienced various types of traumas. Decades of research document that repeated exposure to others' traumas has potential negative impacts such as decreased job performance, social withdrawal, and low self-esteem (American Counseling Association, 2011). Bride et al. (2004) attempted to assess the prevalence and severity of this phenomenon, in social workers, through the development of the Secondary Traumatic Stress Scale (STSS); yet, this tool may be of limited use outside of social work.

Not all helping professionals are negatively impacted from repeated exposure to the traumas of those they help. Researchers have identified a number of factors that reduce or increase symptoms of secondary traumatic stress (Anderson, Bock, Cieslak, & Shoji, 2012; Galek et al., 2011; Hydon, 2015). Individual-level factors include self-efficacy and empathy. Self-efficacy is associated with fewer symptoms of secondary traumatic stress (Cieslak, Luszczynska, Taylor, Rogala, & Benight, 2013), whereas empathy is associated with increased symptoms (Hensel, Ruiz., Finney, & Dewa, 2015). Group-level factors that reduce or increase symptoms of secondary traumatic stress include: perception of a supportive work environment (Galek et al., 2011) and trauma victim-to-caregiver ratio (Hensel et al., 2015). Research on these factors has been mostly limited to counseling professionals, leaving room for inquiry regarding other helping professions, including student affairs professionals. We explore this gap in knowledge in the next section.

Secondary Trauma in Student Affairs

The growing prevalence and severity of student mental needs has put a strain on university counseling centers. A national survey indicated that the number of students seeking services at counseling centers has grown at five times the rate of institutional enrollment from the 2009–2010 to 2014–2015 academic years (Center for Collegiate Mental Health [CCMH], 2016). Ideally, trained university mental health professionals assist students experiencing trauma. Unfortunately, a lack of institutional capacity—coupled with the proximate nature of student affairs work—means students often rely on student affairs professionals as surrogate counselors after experiencing a trauma (Levine & Cureton, 1998; Pope, Reynolds, & Mueller, 2004). For example, a resident director may respond to a reported student suicide, an academic advisor may hear first-hand accounts of war from a student with PTSD coping with concentration in the classroom, or a health promotion professional may assist students with sobriety or substance abuse issues.

Reynolds (2009b) stated, "One of the primary edicts of counseling training is that to be effective, helpers must know . . . what personal issues may sometimes interfere with being effective" (p. 18). Additionally, in 2015 American College Personnel Association (ACPA) and National

Table 1

DSM-V PTSD Criteria

Symptom	Requirement	Criteria
Intrusion	Individual must show signs of at least one criteria.	1. Recurrent, involuntary, and intrusive distressing memories of the traumatic event(s)
		2. Recurrent distressing dreams in which the content and/or effect of the dream are related to the traumatic event(s)
		3. Dissociative reactions (flashbacks) in which the individual feels or acts as if the traumatic event(s) were recurring
		4. Intense or prolonged psychological distress at exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event
		5. Marked physiological reactions to internal or external cues that symbolize or resemble an aspect of the traumatic event(s)
Avoidance	Individual must show signs of at least one criteria.	1. Avoidance of or efforts to avoid distressing memories, thoughts, or feelings about or closely associated with the traumatic event(s)
		2. Avoidance of or efforts to avoid external reminders (people, places, conversations, activities, objects, situations) that arouse distressing memories, thoughts, or feelings about or closely associated with the traumatic event(s)
Negative Change in Cognition and Mood	Individual must show signs of at least two criteria.	1. Inability to remember an important aspect of the traumatic event(s)
		2. Persistent and exaggerated negative beliefs or expectations about oneself, others, or the world
		3. Persistent, distorted cognitions about the cause or consequences of the traumatic event(s) that lead the individual to blame themself or others
		4. Persistent negative emotional state
		5. Markedly diminished interest or participation in significant activities
		6. Feelings of detachment or estrangement from others
		7. Persistent inability to experience positive emotions
Change in Arousal and Reactivity	Individual must show signs of at least two criteria.	1. Irritable behavior and angry outbursts (with little or no provocation) typically expressed as verbal or physical aggression toward people or objects
		2. Reckless or self-destructive behavior
		3. Hypervigilance
		4. Exaggerated startle response
		5. Problems with concentration
		6. Sleep disturbance

Association of Student Personnel Administrators (NASPA) published a joint document highlighting professional competencies for student affairs professionals. This document mentioned the concept of personal wellness over 14 times (ACPA & NASPA, 2015). Despite the prevalence of

student trauma, most graduate programs do not prepare student affairs professionals about how to identify symptoms of secondary traumatic stress in themselves or the factors that mitigate the negative effects of exposure to student traumas (Spano, 2011). Through this study, we aimed to develop and test an instrument meant to measure symptoms indicative of secondary traumatic stress—negative alteration to mood and cognition, arousal and reactivity, avoidance, and intrusive thoughts—in a sample population of U.S. student affairs professionals (American Psychiatric Association, 2013).

Method

Using methods outlined in DeVellis (2011), this scale was developed in a broad three phase process: item development, expert review, and pilot distribution. We developed a 29-item instrument, the Secondary Trauma in Student Affairs Professionals Scale, based on symptom categories identified in the 5th edition of the Diagnostic and Statistical Manual for Mental Health Disorders (DSM-V): Negative Alternation to Mood or Cognition (NAM), Changes in Arousal and Reactivity (AR), Avoidance, (AVD), and Intrusion (INT). Twelve items from the Secondary Trauma Self-Efficacy Scale (Bride et al., 2004) were also adapted to reflect the work environment of student affairs professionals. An additional five items were created based on narratives of student affairs professionals who described their work supporting students who have experienced various traumas. Four items were developed from example symptom descriptions in the DSM-V. Finally, we adapted seven supplementary questions from the Secondary Trauma Self-Efficacy Scale (STSES; Cieslak et al., 2013) in order the examine the relationship of self-efficacy with the four symptom categories.

A panel of nine experts were recruited to review the instrument for content validity (Worthington & Whittaker, 2006). This panel consisted of licensed counselors working within a university setting, mid- and senior-level student affairs professionals working in various functional areas, executive leaders in student affairs professional organizations, and faculty experts in instrument development. Experts were recruited via e-mail within authors' professional networks, as well as professional organization websites, and possessed such qualifications as recognition for student development via national honors and awards, established scholarship in scale development, and professional experience related to wellness in student affairs professionals. The expert panel made recommendations for revisions to ensure the instrument items accurately related to the symptoms categories the instrument was designed to measure, as well as suited to the intended population. Six items were removed from the original set due to lack of fit as articulated by reviewers. The final instrument was then administered to student affairs professionals across the United States. Researchers posited that NAM, INT, AVD, and AR would emerge as factors in the analysis.

Procedures

We recruited participants via e-mails sent to over 400 senior student affairs officers. These individuals were chosen by randomly selecting four private and four public colleges and universities from each U.S. state as generated by a U.S. Department of Education list (U.S. Department of Education, n.d.). The invitation provided a short description of the purpose of the study and asked recipients to distribute the instrument within their division. The e-mail included a link to the instrument that included a disclaimer about the content and nature of the instrument. Qualtrics was used to collect data. Participants provided informed consent; participants did not receive incentives for completing the instrument.

Participants

Six-hundred and seveteen participants completed the instrument, a sample size well above the item-to-participant ratio acceptable in factor analysis (Costello & Osborne, 2005; DeVellis, 2011; MacCallum, Widaman, Zhang, & Hong, 1999). All participants were either full time staff working in a student affairs functional area that has organizational elements defined by the Council for the Advancement of Standards in Higher Education (CAS) or were currently serving as a graduate assistant in departments with a student affairs focus. Participants indicated their racial identity, gender identity, level of education, and career stage. Table 2 summarizes demographic and professional profile information relevant to understanding the sample.

Measures

In the following paragraphs, we provide information regarding the various measures used in the piloting of the instrument.

Types of Trauma(s) Supported. Participants indicated the types of traumas through which they have supported college students by responding to the question "What types of traumas have you supported students through? (Select all that apply)" Participants had the option to select any of the following: hate crimes and discrimination; domestic violence; sexual violence; physical assault; robbery; life-threatening illness or injury; witness to traumatic event; suicidal ideation, attempt, or completion; severe mental health episode (schizophrenic episode, anxiety/panic attack); death of a loved one; natural or man-made disasters (tornados, fires, hurricanes); and mental or physical injury from military combat (Silverman & Glick, 2010).

Frequency of Support. Participants also indicated how often they support students who have experienced traumas by responding to the question: "On average, how often do you support students who have experienced trauma?" Participants selected either: never, about once a year, a few times a year, about once a month, a few days a month, a few days a week, or about every day.

Secondary Trauma Self-Efficacy (STSE). The 7-item STSE scale used a Likert-type 6-point scale (1 = untrue; 2 = somewhat untrue; 3 = slightly untrue; 4 = slightly true; 5 = somewhat true; and 6 = true) to measure the extent to which the respondent felt capable of managing various emotions while working with traumatized students (anger, sadness, or anxiety); handling distressing thoughts about traumatized students; finding some meaning in what happened to traumatized students; coping with thoughts of being able to support students who experienced trauma (Cieslak et al., 2013). This instrument was originally tested using a population of social workers ($\propto = 0.87$).

Secondary Traumatic Stress Measures. Secondary traumatic stress measures (29 items) used a Likert-type 6-point scale (1 = untrue; 2 = somewhat untrue; 3 = slightly untrue; 4 = slightly true; 5 = somewhat true; and 6 = true). We generated items for an initial list based on existing measures of symptoms of secondary trauma (Cieslak et al., 2013). Items were presented in random order and asked respondents about the extent to which supporting students who have experienced various traumas had left them: (a) feeling drained, discouraged about the future, emotionally numb, less interested in being around other people; (b) feeling jumpy, easily annoyed, feeling something bad might happen, having trouble falling asleep, overreacting to small annoyances; (c) avoiding people, places, or things that reminded them of their work with students; avoiding working with some students, if possible; avoiding aspects of their job that remind them of interactions with students; and (d) unintentionally thinking about their support of students who experienced trauma, feeling tense when thinking about supporting students who experienced trauma, and unable to stop thinking about the details of the trauma the student shared. It was

Table 2

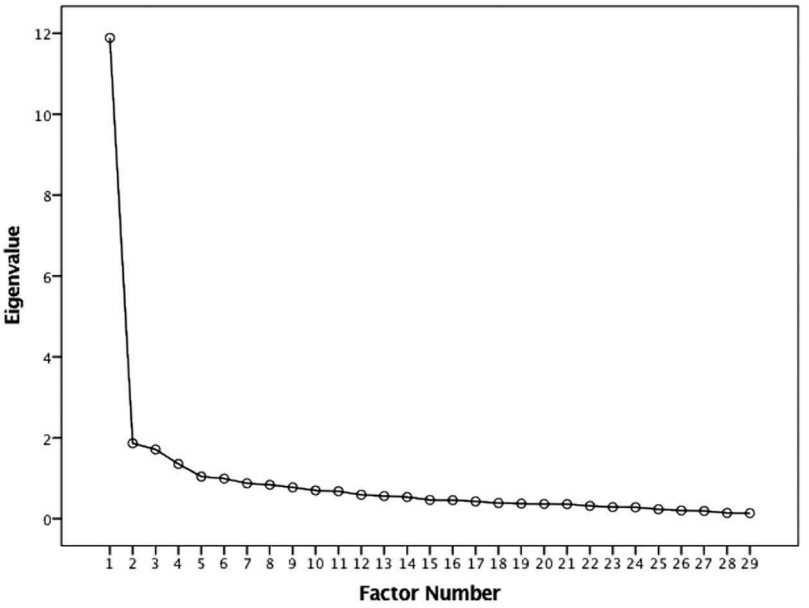
Participant Demographic Information

	N	%
Gender Identity		
Man or Male or Masculine	168	27.2
Woman or Female or Feminine	403	65.3
Non-Binary*	6	0.97
Prefer Not to Answer	40	6.5
Total	617	100
Race		
African American or Black	70	11.3
Asian or Asian American	6	1
Latinx or Hispanic or Chicanx	28	4.5
Arab or Middle Eastern	1	0.2
American Indian or Alaska Native or Indigenous or First Nations	2	0.3
Pacific Island Native	1	0.2
Multiracial or Biracial	13	2.1
White or Caucasian or European American	449	72.8
Prefer Not to Answer	47	7.6
Total	617	100
Sexual Orientation		
Straight	428	69.4
Gay or Lesbian	50	8.1
Bisexual	37	6
Other**	34	5.5
Prefer Not to Answer	68	11
Total	617	100
U.S. Region		
Northeast	120	19.4
South	274	44.4
Midwest	118	19.1
West	99	16
No response	6	1
Total	617	100

*Non-Binary includes transgender, gender non-conforming, gender queer, intersex, fluid, agender, and other related terms.
**Other category encompasses fluid, asexual, pansexual, queer, & questioning. Although these categories represented varied experiences, they were condensed for analytical purposes.

hypothesized that the 29 items would results in a factor structure that would correspond to the four symptom categories in the DSM-V: negative alternation to mood or cognition, changes in arousal and reactivity, avoidance, and intrusive thoughts.

Figure 1. Exploratory factor analysis scree plot.



Data Analysis

To perform an exploratory factor analysis (EFA), we randomly split the original sample collected from the pilot distribution of the instrument (n = 291). We then applied an oblique rotation (Direct Oblimin), due to the expected set of factors developed from an established theoretical framework (Costello & Osborne, 2005; DeVellis, 2011; MacCallum et al., 1999). A maximum likelihood analysis was used to condense the 29-item instrument into a series of factors (Costello & Osborne, 2005). Factor retention was determined using the Scree plot produced with the criterion of eigenvalues greater than 1.00 (see Figure 1). Item retention was determined using items that produced factor weights above 0.30 and factors that had a minimum of three items (DeVellis, 2011; Henson & Roberts, 2006). In order to determine the reliability, alpha levels were calculated for each of the subscales. In line with best practices in reporting empirical support for EFA results (Henson & Roberts, 2006), we detail criteria for the choices made in the analysis and report complete information.

Using the factor model produced by the EFA, we used the remaining sample not used for EFA, (n = 319) for confirmatory factor analysis (CFA). Finally, to test discriminant validity of the instrument, we tested the relationship between the results of the instrument pilot distribution and the results of the adapted STSE. EFA was conducted using IBM SPSS Statistics, Version 24, while AMOS Graphics, Version 22, was used for CFA.

Results

Table 3 reports the types of traumas that student affairs professionals reported supporting students through and the frequency of support. Only 3% of respondents indicated they had never

Table 3

Participant Professional Profile

	N	%
Professional Level		
Assistantship	56	9.1
New Professional	192	31.1
Mid-Level Professional	174	28.2
Senior-Level Professional	80	13
Assistant or Associate Vice President	16	2.6
Vice President of Student Affairs	33	5.3
Faculty	32	5.2
Prefer Not to Answer	34	0.05
Total	617	100
Degree Type		
High School Diploma	5	0.8
Bachelor's	77	12.5
Master's	389	63
PhD/EdD	112	18.2
Professional Degree	4	0.6
Prefer Not to Answer	30	4.9
Total	617	100
Average Time Supporting Students Experiencing Trauma		
Never	18	2.9
Once a year	64	10.4
Few times a year	216	35
Once a month	87	14.1
Few days a month	125	20.3
Few days a week	75	12.2
Every day	32	5.2
Total	617	100

supported a student through trauma, and 87% of respondents reported supporting students through trauma at least a few times a year. More than 66% of respondents reported supporting students through the death of a loved one; sexual violence; suicidal ideation, attempt, or completion; severe mental health episode; and/or hate crimes and discrimination.

Exploratory Factor Analysis

Initially, the factorability of the STSAP items was examined. First, it was observed that 16 of the 18 items correlated to at least 0.3 with at least one other item, suggesting reasonable factorability (see Table 4). Second, the Kaiser-Meyer-Olkin measure of sampling adequacy was 0.93, above the commonly recommended value of 0.6, and Bartlett's test of sphericity was significant ($\chi 2$ [406] =4981.81, $p < 0.00$).

Table 4

STSAP Item Correlation Matrix

STSAP Item Correlation Matrix																							
	Item	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**
1	…having trouble falling asleep	1.00																					
2	…having trouble staying asleep	0.81																					
3	…having trouble concentrating	0.67	0.58	1.00																			
4	…avoiding people, places, or things that reminded me of my work with students	0.41	0.33	0.00	1.00																		
5	…avoiding working with some students, if possible	0.32	0.20	1.00	0.60	1.00																	
6	…avoiding aspects of my job that remind me of interactions with students	0.34	0.26	0.00	0.56	0.75	1.00																
7	…avoiding thinking about details of students' traumatic experiences	0.26	0.20	0.00	0.42	0.51	0.48	1.00															
8	…interacting less with friends	0.39	0.38	0.00	0.50	0.37	0.44	0.22	1.00														
9	…interacting less with family	0.49	0.47	0.00	0.43	0.40	0.44	0.27	0.79	1.00													
10	…less physically active than usual	0.43	0.43	0.00	0.43	0.39	0.44	0.23	0.61	0.64	1.00												
11	…less interested in being around other people	0.43	0.36	0.00	0.55	0.51	0.46	0.31	0.63	0.55	0.53	1.00											
12	…feeling as if I was reliving their traumas myself	0.32	0.34	0.00	0.41	0.35	0.39	0.41	0.28	0.30	0.34	0.32	1.00										
13	…feeling upset encountering reminders of my support of students who experienced trauma	0.41	0.38	0.00	0.45	0.40	0.43	0.30	0.26	0.25	0.32	0.36	0.55	1.00									
14	…feeling my heart pound when thinking about students who experienced trauma	0.48	0.49	0.00	0.42	0.27	0.33	0.29	0.29	0.29	0.34	0.32	0.62	0.52	1.00								
15	…feeling tense when thinking about supporting students who experienced trauma	0.44	0.41	0.00	0.44	0.47	0.46	0.41	0.34	0.30	0.39	0.36	0.47	0.67	0.52	1.00							
16	…unable to stop thinking about the details of the trauma the student shared with me	0.51	0.51	0.00	0.32	0.26	0.33	0.33	0.25	0.24	0.30	0.33	0.39	0.54	0.52	0.53	1.00						
17	…feeling guilt related to the traumatizing event the student experienced	0.44	0.40	0.00	0.34	0.33	0.38	0.34	0.33	0.39	0.38	0.35	0.39	0.48	0.44	0.45	0.43	1.00					
18	…feeling easily annoyed	0.46	0.40	1.00	0.47	0.40	0.37	0.32	0.50	0.37	0.47	0.51	0.28	0.41	0.30	0.40	0.25	0.35	1.00				
19	…overreacting to small annoyances	0.51	0.48	1.00	0.49	0.51	0.48	0.39	0.52	0.51	0.45	0.57	0.33	0.44	0.41	0.46	0.34	0.39	0.71	1.00			
20	…feeling something bad might happen	0.50	0.46	1.00	0.47	0.44	0.42	0.40	0.34	0.32	0.34	0.38	0.41	0.47	0.46	0.43	0.33	0.38	0.49	1.00	1.00		
21	…feeling empty	0.43	0.45	0.00	0.35	0.28	0.29	0.26	0.39	0.38	0.42	0.44	0.35	0.38	0.36	0.42	0.33	0.47	0.46	1.00	0.36	1.00	
22	…feeling jumpy	0.49	0.47	1.00	0.39	0.30	0.42	0.33	0.39	0.39	0.42	0.33	0.44	0.50	0.49	0.44	0.35	0.36	0.50	1.00	0.65	0.36	1.00
23	…feeling emotionally numb	0.49	0.49	1.00	0.38	0.32	0.29	0.32	0.46	0.48	0.44	0.55	0.40	0.39	0.43	0.47	0.40	0.52	0.49	1.00	0.45	0.64	0.41

$p < 0.00$.

Table 5

Exploratory Factor Analysis Results

	Exploratory Factor Analysis Results							
	Item	**ARP**	**AVD**	**NAM**	**INT**	**ARE**	**STSAP**	**Communality**
	Supporting students who have experienced various traumas has left me…							
1	…having trouble falling asleep	1.00						0.76
2	…having trouble staying asleep	0.72						0.71
3	…having trouble concentrating	0.38						0.64
4	…avoiding people, places, or things that reminded me of my work with students		0.44					0.55 0.69
5	…avoiding working with some students, if possible		0.87					
6	…avoiding aspects of my job that remind me of interactions with students		0.76					0.69
7	…avoiding thinking about details of students' traumatic experiences		0.44					0.40
8	…interacting less with friends			0.88				0.74
9	…interacting less with family			0.88				0.73
10	…less physically active than usual			0.60				0.55
11	…less interested in being around other people			0.47				0.55
12	…feeling as if I was reliving their traumas myself				0.70			0.51
13	…feeling upset encountering reminders of my support of students who experienced trauma				0.68			0.61
14	…feeling my heart pound when thinking about students who experienced trauma				0.68			0.59
15	…feeling tense when thinking about supporting students who experienced trauma				0.58			0.60
16	…unable to stop thinking about the details of the trauma the student shared with me				0.58			0.57
17	…feeling guilt related to the traumatizing event the student experienced				0.44			0.48
18	…feeling easily annoyed					0.69		0.59
19	…overreacting to small annoyances					0.68		0.69
20	…feeling something bad might happen					0.44		0.61
21	…feeling empty					0.37		0.56
22	…feeling jumpy					0.36		0.58
23	…feeling emotionally numb					0.34		0.62
Eigenvalue		12.0	1.90	1.70	1.30	1.00		
% Variance Explained		24.0	19.0	5.10	3.70	2.30	53.6	
Chronbach's ∝		0.90	0.82	0.86	0.86	0.86	0.94	

Table 5 reports the results of EFA, indicating a five-factor model. The exploratory factor analysis produced a five-factor solution, which explained 53.60% of the total variance. The results indicated 23 items with pattern coefficients equal to or greater than 0.30, corresponding to five factors, each with three or more items. Six items were removed due to low pattern coefficients. We established the following five factor labels: Negative Alteration to Mood or Cognition (NAM), Physical Arousal and Reactivity (AR-P), Emotional Arousal and Reactivity (AR-E), Avoidance (AVD), and Intrusion (INT). The five-factor structure differed from the expected four factor structure because items hypothesized to comprise Changes in Arousal and Reactivity loaded on two separate factors. Communalities, ranging from 0.40 to 0.76, were within an acceptable range for established social science research (Cabrera-Nguyen, 2010; Costello & Osborne, 2005). Results of reliability analysis indicated strong internal reliability, ranging from 0.82 to 0.87, for all five subscales. The overall instrument resulted in an alpha of 0.94.

Further investigation into the reliability of the overall instrument across social identify groups including race, gender, and sexual orientation resulted in reliability scores at or above 0.88. Specifically, all alphas for racial demographics fell between 0.90 and 0.94. Participants identifying as Native American, Middle Eastern, and Pacific Islander were too few to calculate reliability scores. All alphas for gender demographics fell between 0.88 and 0.93. Non-binary identities were combined to meet measurability requirements. All alphas for sexual orientation demographics fell between 0.92 and 0.94. Non-heterosexual identities were combined to meet measurability requirements.

Confirmatory Factor Analysis

Results of CFA indicated a model that adequately fit, using standards associated with chi-square values, root mean square of error approximations (RMSEA), and comparative fit index (Hooper, Coughlan, & Mullen, 2008). All indices indicated that the data fit reasonably well with the model derived from EFA ($\chi^2[220] = 808.24$, $p = < 0.01$, CFI = 0.900, RMSEA = 0.090). Table 6 summarizes these findings.

Bivariate correlation results indicated a small but significant negative correlation between the instrument ($\propto = 0.94$) and STSE ($\propto = 0.79$) scores, $r(289) = 0.23$, $p < 0.01$ (see Table 7).

Discussion

In this study, we sought to expand the understanding of secondary traumatic stress in the work of student affairs professionals by developing an instrument to quantitatively measure symptoms associated with this phenomenon. While instruments measuring secondary trauma currently exist for other helping professions, such as social work, an instrument has yet to be developed that is specific to the contexts of student affairs work. This study was inspired by the work of Bride et al. (2004), but the instrument described in this study was developed and piloted within a sample of social workers, was

Table 6

Results of STSAP Confirmatory Factor Analysis

Analysis	RMSEA	CFI	df	χ^2	χ^2/df
First Order Latent Variable Analysis	0.09	0.90	220	808.24*	3.67

*$p < 0.001$.

Table 7

Scale and Subscale Bivariate Correlation Matrix

	Item	Mean	Max	S.D.	1	2	3	4	5	6	7
1	AR-P Scale	3.10	6	1.50	-						
2	AVD Scale	2.50	6	1.30	0.46	-					
3	NAM Scale	2.70	6	1.40	0.59	0.55	-				
4	INT Scale	2.70	6	1.20	0.61	0.59	0.50	-			
5	AR-E Scale	2.90	6	1.20	0.69	0.61	0.66	0.67	-		
6	STSE Scale	5.10	6	0.80	–0.19	–0.23	–0.15	–0.21	–0.19	-	
7	STSAP	2.80	6	1.10	0.71	0.79	0.79	0.84	0.90	–0.23	
8	Average time spent supporting students	3.90	7	1.50	0.17	0.13	0.21	0.19	0.14	0.14	0.16

All significant at the 0.01 level (2-tailed).

based on past edition of the DSM, and only sought to measure three of the four symptoms described within the DSM. In order to expand on this work, we developed and tested an instrument that identifies the prevalence and severity of symptoms of secondary trauma that student affairs professionals may experience as a result of their exposure to student crises.

The results indicate that the instrument subscales demonstrate construct validity, internal validity, and discriminant validity. Results also indicate that the instrument subscales represent the key dimensions of negative alteration to mood or cognition, physical arousal and reactivity, emotional arousal and reactivity avoidance, and intrusion relevant to the study of secondary trauma in student affairs professionals. The instrument differed from the expected results in that changes in arousal and reactivity loaded on two independent factors: *physical* changes in arousal and reactivity and *emotional* changes in arousal and reactivity. This result indicates the need for a more nuanced understanding of this particular symptom group within the context of DSM-V criteria. Practically, this differentiation could warrant expansion of DSM criteria for diagnosis or indicate subtleties in expression of symptoms.

As expected, the STSE scale indicated acceptable reliability (cf. Cieslak et al., 2013). A negative correlation also existed between the STSE scale and the STSAP scale. This relationship is consistent with current understandings of the inverse relationship between secondary traumatic stress and secondary trauma self-efficacy (Bonach & Heckert, 2012; Ortlepp & Friedman, 2002; Prati, Pietrantoni, & Cicognani, 2010).

Additionally, this study was able to build on the work of Bride et al. (2004), using the most current version of the DSM, as well as expand the range of symptomologies and populations explored with this instrument. Moreover, this study attended to a particular limitation highlighted by that research team by using CFA to illustrate model fit. The results highlight correlations found in other studies between exposure to trauma–or hearing repeated details of trauma–and negative psychological outcomes (Bride et al., 2004; Figley, 1999; Galek et al., 2011; Hydon, 2015; Whitfield & Kanter, 2014).

Implications

The results of this study have practical application for how student affairs practitioners, departmental leaders, and graduate preparation programs may use the instrument to address secondary trauma in higher education. First, practitioners may use the instrument as a tool for exploration to gain more insight regarding how their support of students has impacted their well-being. As highlighted earlier, researchers and practitioners agree that self-awareness is one skill that enhances the effectiveness of professional helpers (Reynolds, 2009b). Since the instrument provides the ability to reflect on the different dimensions of secondary trauma, practitioners may be able to perform a more nuanced reflection in regard to how secondary trauma may be impacting their lives and work. Practitioners may also be more encouraged to seek professional help if they identify trends and magnitudes of symptoms.

Second, the instrument may prove useful to supervisors as a tool to create supportive and developmental organizational environments. By encouraging employees to use the instrument, either anonymously or during individual meetings, supervisors may be able to take proactive measures in addressing secondary trauma such as required counseling or arranging group counseling for staff throughout the year. Department supervisors may choose to partner with off-campus counseling organizations to do so in order to prevent conflict of interests with on-campus counselors who may interact professionally with student affairs practitioners. Supervisors may also provide time at the conclusion of each semester in order for staff to complete the instrument and share their reflections with each other in order to build peer-support, decrease sense of isolation, and identify trends. Ignelzi (1994) argued, "The supervision that developing [student affairs professionals] receive is important for learning and mastering the craft of their profession, and ultimately in providing quality service to their constituents" (p. 1). This is especially true in functional areas with high student contact or high potential for trauma support such as residence life or student conduct.

Finally, many graduate preparation programs that focus on college student affairs work may not sufficiently build skills for personal wellness, including mental health. One of the most impactful takeaways from this study is a call for a more deliberate and nuanced effort within the graduate preparation curriculum to address the reality of secondary traumatic stress as a byproduct of student affairs work. Mirroring social work or clinical counseling programs, courses may be further developed to go beyond basic group dynamics or helping skill outcomes. Graduate program directors may also use this instrument to assess the impact of assistantship stress on advisees, particularly those in positions with high contact with students who have experienced various traumas, for example, housing and residence life and student conduct. Faculty members may also use the instrument as a guided reflection activity in classes that focus on professional helping skills, giving students a common language to discuss their experiences. Finally, graduate student organization advisors may use the instrument to promote inter-group debriefing regarding student trauma. These recommendations are important to building cultures of support, as literature in other helping professions has indicated the importance of strong social networks and organizational support as mitigating factors for secondary trauma (Galek et al., 2011).

The results of this study have policy implications related to workers' compensation. By attending to work-related stress, employers may be able to prevent physical and psychological maladies resulting from this stress, in turn conserving the fiscal resources of the department. In 2015, The American Psychological Association Center for Organizational Excellence reported that 51% of employers view mental health as the biggest threat to staff health (Scott, 2015). As issues of mental health, chronic stress, and occupational disease become

further clarified, statutory and common law related to workers' compensation have continued to evolve to include remuneration for wages lost due to psychological illness in which an individual's place of work has contributed (Copeley, n.d.; Riley, 2000). Today, due to the nebulous connections between mental illness and occupation, litigators continue to debate the responsibility of employers in these types of cases (Berry, 1998; Copeley, n.d.; Riley, 2000). Currently, most states provide workers' compensation for mental health issues to varying degrees, with each state administering various thresholds that must be met to qualify (Copeley, n.d.).

The results of this study may assist institutional policymakers, as well as departmental supervisors, in negotiating employee risk for work-induced psychological distress. Employers are encouraged to review their state's workers' compensation laws to assess their responsibility in creating healthy work environments, as well as ensuring that all employees have a clear understanding of their rights as they apply to workers' compensation. Additionally, by taking heed of recommendations made in the previous section, employers may create environments that mitigate the impact of work-related stress on the psychological well-being of their employees.

Limitations and Further Research

This instrument is not without limitation. First, it should be acknowledged that given the self-reported nature of the data, participants may have difficulty accurately recalling their past emotions and behaviors. Clinical diagnosis of trauma-related mental illness requires that symptoms remain present at least one month after the trauma event. It is the recommendation of the authors that the instrument be administered approximately six weeks post-event. Additionally, participants may not be a truly representative sample of the larger population, as they may have been more inclined to participate due to their experiences supporting students. Conversely, potential participants may have been deterred due to the fear of recalling painful memories brought about while completing the survey. Furthermore, participants were not asked about their current or past state of mental health. Comorbidity of other psychological conditions, such as anxiety and depression, is often associated with trauma-related mental health disorders (American Psychiatric Association, 2013). Finally, factor loadings for many of the items were considered to be low but were kept in the final iteration of the instrument, as removal compromised content validity.

To further research, the instrument may be used as the basis for a number of studies designed to better understand the phenomenon of secondary traumatic stress as a result of college student affairs work. Scholars may use the instrument to identify differences in psychological impact among professionals of differing levels of experience, different gender, racial/ethnic, and sexual orientation. Contemporary understanding of psychological trauma finds that historically marginalized groups are disproportionately impacted by trauma. These may be populations of interest for replication, as well as specific occupational populations that have high student contact such as resident assistants or faculty. Scholars could also use the instrument to conduct longitudinal studies on individuals or organizations that investigate whether secondary trauma occurs in patterns throughout the academic year, as well as explore what factors impact the duration of symptoms associated with secondary trauma. The instrument may be used to extend supervisory literature and empirical understanding of social ecologies within student affairs divisions. Social ecology may be defined as "a theory-based framework for understanding the multifaceted and interactive effects of personal and environmental factors that determine behaviors, and for identifying behavioral and organizational leverage points and intermediaries for health promotion within organizations" (UNICEF, n.d., p. 1). Finally, additional items may be created to better

assess symptoms associated with secondary traumatic stress, particularly for the sub-scale associated with arousal and reactivity. Alternately, items, or a separate instrument altogether, may be created to assess preventative or catalyzing factors identified in other helping professions including empathy, self-efficacy, or personal trauma history (Baird & Kracen, 2006; Cieslak et al., 2013; Crumpei & Dafinoui, 2012).

Conclusion

The negative impact of supporting students through traumatic life events is a real, and potentially severe, byproduct of college student affairs work. The purpose of this study was to develop and validate an instrument meant to assess symptoms associated with secondary traumatic stress using a sample of U.S. student affairs professionals. Extending the work of Bride et al. (2004), the Secondary Trauma in Student Affairs Professionals Scale was found to have demonstrated content validity, internal validity, and discriminant validity. The results indicated that the instrument may be used to assess the symptoms of secondary trauma. Although the instrument is not intended for diagnostic use, scholars, practitioners, supervisors, and policymakers may find it useful in further exploring the impact of secondary trauma within the context of higher education. We welcome requests for dissemination of the instrument for individual, departmental, or institutional use.

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