Psychological Trauma: Theory, Research, Practice, and Policy

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(Please note that a corrected Table 4 is appended at the end of the article.)

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Trauma, Stress, and Self-Care in Clinical Training: Predictors of Burnout, Decline in Health Status, Secondary Traumatic Stress Symptoms, and Compassion Satisfaction

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Objective: Courtois and Gold (2009) have called for the inclusion of trauma in the curriculum for all mental health training programs. The present study investigated the impact of trauma-related content, stress, and self-care (SC) on trainees in such a program. ***Method:*** The study examined potential risk factors (trauma exposures in training [being faced with or reacting to trauma-related field work experiences and course content] and perceptions of stress in field and coursework) and protective factors (SC effort and importance) in relation to burnout (BO), health status (HS), secondary traumatic stress symptoms (STSS), and compassion satisfaction (CS) among 195 students in a graduate social work training program. ***Results:*** All students reported trauma exposures in their field placements and/or coursework, including retraumatization experiences that were associated with higher STSS and BO. Field stress and SC effort were both consistent predictors across outcomes. Higher field stress levels predicted higher BO and STSS, a greater likelihood of decline in HS, and lower CS. Lower SC effort was also associated with higher BO and STSS, and a greater likelihood of decline in HS, while higher SC effort predicted higher CS. Older students, those with traumatized field clients, and those whose field work addressed trauma, also reported higher CS. ***Conclusions:*** These findings suggest that clinical training involving trauma content can be both rewarding and stressful, and may evoke distress in some trainees. Given that learning about and working with trauma are essential to adequate clinical training, the authors suggest adopting a trauma-informed approach within clinical training programs.

Keywords: clinical training, secondary trauma exposure, stress, self-care, outcomes

A range of reports over the past three decades suggest that histories of violence and victimization are widespread among mental health clients (described in Jennings, 2004). Yet, as Courtois and Gold (2009) have noted, clinical instruction and training in psychology, social work, and other mental health disciplines has largely lagged behind the apparent need to include traumatic stress in the training curriculum. Indeed, "the noninclusion of information . . . about trauma as a major aspect of human experience and as a substantive contributor to derailment of normative development and the development of psychopathology, defies logic" (Courtois & Gold, 2009, p. 12).

Consequently, Courtois and Gold (2009) have called for the inclusion of trauma in the clinical training curriculum to prepare students to work effectively with the traumatized clients they will inevitably encounter in their internships and field placements and later as professionals. The addition of this content is critical because students in internships/field placements may confront, for the first time, the need to provide services to clients who have experienced child maltreatment, domestic violence, physical and sexual assault, refugee experiences, life-threatening illness, military service-related traumas, and school, work, and community-related violence, among others. Moreover, working with trauma may be even more difficult for those in training who have limited skills and life experience, or who may be vulnerable to feeling overwhelmed or incompetent or to having their assumptions about childhood, family, and the world challenged (Cunningham, 2004; Neumann & Gamble, 1995). These considerations underscore the need for instruction and experience at the time when educational resources and close supervision are available. It is unknown how many students in the mental health professions are actually prepared adequately by their training programs for such work. One study (Adams & Riggs, 2008), conducted prior to Courtois and Gold's (2009) call, found that in a sample of 134 clinical and counseling psychology graduate students, 25% reported working with trauma clients without prior trauma training.

Exposure and Reactions to Trauma-Related Content in Clinical Training

The benefits to clinicians-in-training (and their clients) of including appropriate education in trauma seem self-evident: present and future clients will be better understood and served, and trainees will gain knowledge and some preparation in a key aspect of

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clinical practice. Nonetheless, exposure to traumatic material in practice settings and coursework has some risks, albeit risks that clinicians will face *with or without such training* once they enter the field. In field settings, working with clients with trauma histories and doing trauma work may be understood as secondary trauma exposures (Bride, 2004). In the classroom, such "exposures" could include disturbing case material in readings, videos, presentations, and shared stories. A handful of anecdotal and research reports (e.g., Adams & Riggs, 2008; Bussey, 2008; Knight, 2010; Shannon, Simmelink, Im, Becher, & Crook-Lyon, 2014; Zosky, 2013) have described clinical training or coursework experiences that produced or triggered distress and traumatic stress symptoms in some trainees.

Further evidence of secondary exposures can be inferred from student *reactions* to content—such as feelings of fear, helplessness, or horror (i.e., posttraumatic stress disorder [PTSD] subjective exposure Criterion A2; American Psychological Association [APA], 2000), or the reexperiencing of memories and feelings originating in earlier traumatic life events (i.e., retraumatization; Carello & Butler, 2015; Shannon et al., 2014). Adams and Riggs (2008) found that 38.7% of clinical trainees reported a history of personal trauma (see also Didham, Dromgole, Csiernik, Karley, & Hurley, 2011).

As a consequence of secondary trauma exposures, those with or without personal trauma histories are at risk for secondary traumatic stress (STS; reviewed in Baird & Kracen, 2006; Bride, 2004). STS describes the phenomenon wherein the sharing of traumatic experiences—particularly in circumstances where the listener is highly empathic or trying to be—stimulates trauma-related symptoms in the listener that can parallel those in the survivor (Figley, 1999). A closely related construct, *vicarious traumatization* (VT), refers to the cumulative impact of working with survivors of trauma, including widespread changes in the therapist's identity, worldview, psychological needs, beliefs, and memory (McCann & Pearlman, 1990; Pearlman & Saakvitne, 1995). STS and VT have been described as occupational hazards for anyone delivering direct services to traumatized populations and may impede clinician effectiveness (e.g., Pearlman & Saakvitne, 1995; Rosenbloom, Pratt, & Pearlman, 1999).

Given the extensive findings that trauma exposure can result in STS/VT among practitioners (e.g., Baird & Kracen, 2006; Bride, 2007), clinical training may put students at considerable risk. Moreover, students who are not trained in trauma will lack the framework necessary to understand their own reactions to their work with traumatized clients (Pearlman & Saakvitne, 1995).

Stress in Clinical Training

In addition to trauma-related exposures during training, clinical training can be highly stressful for students (Collins, Coffey, & Morris, 2010; Cushway, 1992; Tobin & Carson, 1994). The stress in clinical training is due, in part, to the time and performance demands of both coursework and clinical placements, and tensions between them (Collins et al., 2010; Cushway, 1992). Trainees may also face additional stressors such as performance anxiety, professional self-doubt, peer competition, poor supervision, time constraints, boundary and ethical challenges, institutional and role demands, and role switching (Badali & Habra, 2003; Collings & Murray, 1996; Cushway, 1992; Pakenham & Stafford-Brown, 2012), as well as the difficult and complex problems encountered in working with clients (Neumann & Gamble, 1995), and the strains involved in some internship or placement settings (Collings & Murray, 1996). All these factors may intensify feelings of training-related stress and thereby challenge the delicate balancing act required of trainees to manage coursework, clinical work, work responsibilities, and home life.

The experience of high levels of stress is aversive in and of itself, and it also increases the likelihood of BO. BO is characterized by emotional exhaustion, depersonalization (approaching others negatively and treating them as objects), and reduced motivation and sense of achievement (Maslach, Schaufeli, & Leiter, 2001). The risk of BO is increased for professionals with large caseloads, limited professional support/supervision, lower levels of experience, and challenging client populations (Maslach et al., 2001; Newell & MacNeil, 2010), and those most committed and dedicated to their work are often the most vulnerable (Freudenberger, 1977). Stress and trauma history, in turn, can negatively impact physical health through their effects on health risk behaviors and on neuroendocrine, autonomic, metabolic, and immune systems (Felitti et al., 1998; Green & Kimerling, 2004; McEwen, 2012).

Self-Care (SC) in Clinical Training

As might be expected, the entreaty to include trauma in clinical curricula (Courtois & Gold, 2009) has prompted calls to augment that instruction with material that might confer some protection to students, such as information on STS/vicarious trauma and SC practice (Agllias, 2012; Carello & Butler, 2015; Knight, 2013; Newell & Nelson-Gardell, 2014; Zosky, 2013). SC is widely extolled in training and practice as protective against stress and distress (e.g., Figley, 2002; Neumann & Gamble, 1995); however, little research has assessed this assertion among trainees, nor examined the relationship of SC to positive outcomes such as better health or heightened CS. The term *compassion satisfaction* describes the pleasure helping professionals derive from being able to do their work effectively (Stamm, 2010).

In the present study we examined some of the possible effects of exposure to traumatic content and stress for students in a graduate social work training program that has infused trauma content and trauma-informed care instruction (Harris & Fallot, 2001) throughout its curriculum and has online SC resources available to students. The primary aims of this study were to:

(a) examine trauma-related exposures during graduate training (in field or coursework); and

(b) investigate whether training-related risk (i.e., trauma-related exposures and stress related to field and coursework) and protective factors (i.e., belief in SC importance and changes in SC effort) predict BO, decline in HS, STSS, and CS among trainees in the following ways: risk factors would be associated with higher levels of negative outcomes (BO, decline in HS, and STSS) and lower CS, while protective factors would be associated with lower levels of negative outcomes and higher CS.

Method

Participants

A total of 195 students (47.6% of the students enrolled in the program) consented to participate and responded to one or more of

the survey items (one additional student consented but completed no survey items; demographic and program characteristics are presented in Table 1). The sample was primarily female (87.7%) and non-Hispanic White (81.7%). The median age was between 25 and 29 (range = 20–55+). The majority (71.3%) reported being in a current relationship, and almost one quarter (22.1%) reported caring for one or more children and/or other family members.

Nearly two thirds (62.6%) of the sample were full-time students, and half (50.5%) were in their first year of study. The majority (86.2%) had at least one current or past field experience, and 76.8% were in a field placement at the time of data collection (mean field hours per week = 16.0; *SD* 3.7; range 0–40). Past and/or current placement settings included mental health or substance abuse (31.1%), school social work (20.4%), child welfare (19.9%), organizations/community (12.2%), health care (9.2%), trauma program/domestic violence (8.2%), crisis intervention (5.1%), and residential treatment (3.1%), among others. Most students (63.3%) had no clinical experience before entering the program.

Measurement

Training-related exposures. Five items were developed or adapted from Bride (2007; B. E. Bride, personal communication, October 21, 2011) to query respondents about potential exposures and reactions to trauma-related content in their field placement setting and coursework. With respect to field experiences, the following were asked: the extent to which the client population was traumatized (*not at all, slightly, moderately, very,* or *extremely*); how often the work addressed clients' traumas (*never, rarely, sometimes, often,* or *very often*); and the extent to which the respondent experienced fear, hopelessness, and horror (APA, 2000) in reaction to client trauma reports (*not at all, slightly, moderately, very,* or *extremely*). Respondents were also asked if they had experienced a reactivation of their own feelings/memories from negative past experiences (i.e., retraumatization) in response to topics raised by clients and/or in coursework (*never, rarely, sometimes, often,* or *very often*).

Training-related stress. To examine the relative stressfulness of coursework and field work, students were asked: "During your training in the (program), how stressful have you found your coursework (or field placement[s]) to be?" The five possible response options for each question were: *not at all, slightly, moderately, very*, and *extremely*.

SC importance and change in SC effort. Two aspects of student SC were assessed with previously piloted items: students' perception of the importance of SC to their overall well-being (5 response options ranged from *not at all important* to *extremely important),* and whether there were changes in the effort the student had put into SC since starting the training program (response options were: *it has decreased*, *it has stayed about the same*, *it has increased*).

BO and CS. Negative and positive aspects of helping others were assessed with the widely used 30-item Professional Quality of Life Scale (ProQOL; Stamm, 2010), which yields subscale scores for BO, STS, CS, and compassion fatigue. Respondents were asked to indicate the frequency of specific experiences in the

Table 1
Overall Participants Demographic Composition and Program Characteristics

Variable (*N*)	Level	Number (%)
Gender (195)	Female	171 (87.7)
	Male	23 (11.8)
	Transgender	0 (.0)
	Other	1 (.5)
	Prefer not to say	0 (0)
Racial/ethnic background (195)[a]	African American/African/Black	13 (6.7)
	Asian/Indian/Pakistani	9 (4.6)
	Caucasian/White (non-Hispanic)	156 (81.7)
	Hispanic/Latino/Latina	9 (4.6)
	Native American/Alaskan Native	2 (1.0)
	Other	9 (4.6)
	Prefer not to say	5 (2.5)
Program status (195)	Traditional full-time	94 (48.2)
	Traditional part-time	57 (29.2)
	Advanced standing full-time	28 (14.4)
	Advanced standing part-time	16 (8.2)
Year of study (194)	1st	98 (50.5)
	2nd	72 (37.1)
	3rd	19 (9.8)
	3+	5 (2.6)
Field experience (194/195/195)	Currently in field	149 (76.8)
	Past field experience	140 (71.8)
	No field experience	27 (13.8)
Clinical experience (180)	None	114 (63.3)
	1–4 years	48 (26.7)
	5–9 years	10 (5.6)
	10 or more years	8 (4.6)

[a] Percentages sum to more than 100% because participants could endorse more than one.

previous 30 days (*never, rarely, sometimes, often, very often*). For the present study, only the BO and CS subscales were used. Cronbach's alphas were .65 and .92, respectively.

Change in HS. Change in perceived HS was assessed with a single question with three response options: "Since you started your (training) program, which of the following best describes any changes in your overall physical health status?" (*my overall health has declined, my overall health has stayed about the same, my overall health has improved*).

STSS. STSS were assessed for the past month with the 17-item Secondary Traumatic Stress Scale (Bride, Robinson, Yegidis, & Figley, 2004). Respondents indicated the extent to which statements about the impact of their work with traumatized clients were true for them (*never, rarely, occasionally, often, very often*). Satisfactory reliability, and convergent, discriminant, and factorial validity have been demonstrated (Bride et al., 2004). Cronbach's alpha with complete data was .92. Twenty-nine students had missing data; of those, nine had omitted only one item and one had omitted two. Given an average interitem correlation of .40, we computed the STSS score as the prorated mean for students with at least 15 valid item responses.

Recruitment and Procedure

After obtaining institutional review board (IRB) approval, instruments were formatted for web-based use and data were collected through SurveyMonkey (SurveyMonkey, Inc.) assessment technology. Potential participants were recruited from the pool of students enrolled in a master of social work program at a large northeastern university during the last month of the 2013 spring semester. To encourage participation and achieve adequate sample size, email announcements were distributed to students and faculty, and instructors were asked to make brief class announcements. Students were not paid for their participation, although those who completed the survey were given the opportunity to enter a lottery for one of two iPads. All current students ($N = 410$), including full-time and part-time cohorts, were sent an email with a link to the web-based survey and an invitation to participate. Follow-up email reminders were sent on a weekly basis for 4 weeks. Students were reminded that their participation was entirely anonymous, confidential, and voluntary, as was their choice whether or not to answer specific questions on the survey.

Once participants clicked on the survey link, they were presented with information on the purpose of the study, the risks and benefits of participation (including contact information for university counseling services), confidentiality, the voluntary nature of the study, and contact information for the study's principal investigator (LDB) and the IRB. Only those students who affirmed their consent to participate were given access to the survey.

Overview of Analyses

Statistical analyses were conducted with SPSS for Windows, version 23 (SPSS, Inc.). Bivariate correlations between all variables were conducted to identify associations and collinearity. Multiple regressions were conducted to examine the relative contributions of selected risk and protective variables in the prediction of the three continuous outcomes: BO, STSS, and CS. For the HS outcome, a logistic regression analysis was performed using risk and protective factors as predictors and *decline* in HS as the outcome (compared with no change in HS + improved HS). We chose to make HS a dichotomous variable for both conceptual and practical reasons: negative change in HS was our primary concern for students experiencing training-related stress, and those who reported improved HS were small in number (13.9%) and would have had very low power if examined separately in analyses. Zero-order correlations were examined to identify the predictor variables that were significantly associated ($p < .05$ or better) with each outcome, and each was included in its respective regression. Preliminary analyses indicated that *change in SC effort* (decrease, no change, increase) was linearly related to each of the outcome variables, and so we elected to use SC effort as a continuous (rather than categorical) variable in the regressions. All correlation coefficients among predictor variables (available from the authors) were less than .50; all reported p values are 2-tailed.

Results

Training-Related Exposures

Descriptives for all predictor variables are reported in Table 2. Overall, every student endorsed experiencing one or more of the five potential trauma exposures (to some extent) while in the program. When students were asked the extent to which their field clients had been traumatized, about half (48.5%) indicated *extremely* or *very,* and only one participant (.6%) endorsed *not at all.* When asked how often their field work addressed their clients' traumas, 44.1% of students reported *very often* or *often*, and 2.5% said *never*. When asked about the extent to which they had experienced fear, hopelessness, or horror in reaction to field clients' trauma reports, 6.7% reported either *very* or *extremely,* and 25% reported *not at all*. Potential retraumatization experiences were indicated by a significant minority of students: with respect to field, 41.7% of students endorsed *sometimes, often, or very often*, and 17.8% endorsed *never*; with respect to coursework: *sometimes, often,* or *very often* was endorsed by 45.5%, and *never* by 18%. Overall means for retraumatization did not differ significantly between coursework and field ($t(161) = 1.517$, *ns*), however they were quite highly correlated, $r = .51$, $p < .001$ and so they were summed to create a *training retraumatization* variable for use in the regressions.

Training-Related Stress

Students reported that the demands of coursework were significantly more stressful, on average, than the demands of field work, $t(166) = 8.645$, $p < .001$. Indeed, 53.9% of students indicated that coursework was *very* or *extremely* stressful, while only 20.4% said that about field. Additionally, no student reported that their coursework was *not at all* stressful, while 9.6% endorsed that for field. Scores for coursework and field stress were weakly correlated, $r = .17$, $p < .05$ and so these variables were examined separately.

SC Importance and Change in SC Effort

Every student indicated that SC was important to some extent to her or his well-being, with 50% indicating *extremely*, 40% *very*, 9% *moderately*, and 1% *slightly*. Nevertheless, only 25.7% re-

Table 2
Descriptive Statistics for Predictor and Outcome Variables

Variable	Mean (*SD*)	Range	*N*
Exposure			
Field: client traumatization	3.50 (.93)	1–5	163
Field: work addresses trauma	3.36 (1.02)	1–5	163
Field: student PTSD Criterion A2 response	2.14 (.93)	1–5	164
Field: student retraumatization	2.34 (.90)	1–5	163
Coursework: student retraumatization	2.43 (.97)	1–5	189
Stress			
Field: how stressful?	2.83 (1.04)	1–5	167
Coursework: how stressful?	3.63 (.75)	2–5	180
Self-care			
Importance	4.38 (.70)	2–5	180
Effort change	1.75 (.84)	1–3	179
Outcomes			
Burnout	21.31 (5.45)	10–38	168
Decline in health status[a]	.43	0–1	180
Secondary traumatic stress symptoms	34.99 (12.28)	17–85	176
Compassion satisfaction	39.50 (6.15)	25–50	169

Note. PTSD = posttraumatic stress disorder.
[a] Decline in health status (HS) is a dichotomous variable (no change in HS + improved HS = 0 vs. decline in HS = 1), so the proportion who reported a decline is reported here.

ported increasing their SC effort since starting the program, while 24.0% said it had stayed about the same, and 50.3% reported a decrease in effort.

Outcomes

Descriptive statistics for the outcomes are presented in Table 2. For BO, all students fell within the low (57.7%) or average (42.3%) ranges (Stamm, 2010). Of note, 43.3% of the sample indicated that their health had declined since starting the program, while 42.8% reported that it had stayed about the same, and only 13.9% reported that it had improved. According to provisional recommendations for interpretation of STSS scores when using this measure (Bride, 2007), the majority of students in the present sample reported little or no (31.3%) or mild (28.4%) trauma symptoms, while 19.8% were moderate, and 20.5% were high or severe. With respect to CS, all students fell in the average (58.6%) or high (41.4%) ranges (Stamm, 2010).

Correlations Between and Among Predictors and Outcomes

Correlations between predictor and outcome variables are presented in Table 3. Neither gender, race/ethnicity (non-Hispanic White vs. Hispanic and/or non-White), nor year of study (first vs. later) were significantly associated with any of the four outcomes, but age was positively associated with CS. The nature of student field experiences, including the extent to which clients were traumatized and trauma was the focus of practice, were positively associated with CS. Trauma exposures involving emotional responses, such as experiencing fear, hopelessness, or horror, or a reactivation of a student's trauma history (retraumatization), were positively associated with STSS; retraumatization was also associated with BO. Both field stress and SC effort were associated with all four outcomes.

With respect to correlations among predictors used in the regressions, having a traumatized field population and doing field

Table 3
Zero-Order Correlations Between Predictor and Outcome Variables Examined in the Regressions

	Outcomes			
Predictors	Burnout	Decline in health status	Secondary traumatic stress symptoms	Compassion satisfaction
Age	−.12	.08	−.14	.22**
Field clients traumatized	−.07	.02	.00	.26**
Field work addresses trauma	−.15	−.12	−.03	.33***
PTSD Criterion A2 experiences	.16	.07	.23**	.14
Training retraumatization	.28**	.12	.44***	.03
Field stress	.27**	.25**	.30***	−.16*
Coursework stress	.12	.14	.24**	−.06
Self-care importance	−.04	.10	.06	.17*
Self-care effort change	−.23**	−.36***	−.20**	.21**

Note. PTSD = posttraumatic stress disorder. Decline in health status (HS) is a dichotomous variable (no change in HS + improved HS vs. decline in HS); Training retraumatization is the sum of field and coursework retraumatization.
* $p < .05$. ** $p < .01$. *** $p < .001$.

work that focused on trauma were both associated with reporting PTSD A2 reactions ($r = .42$, $p < .001$, $r = .27$, $p < .01$, respectively). Higher field stress was associated with both PTSD A2 reactions, $r = .25$, $p < .01$ and training retraumatization, $r = .16$, $p < .05$, but coursework stress was not associated with either ($r = .09$, *ns*, $r = .03$, *ns*, respectively). SC effort was negatively associated with coursework stress, $r = -.20$, $p < .05$, and there was a similar trend for field stress ($r = -.14$, $p = .07$). Among the outcomes, higher BO was associated with lower CS, $r = -.66$, $p < .001$, higher STSS, $r = .62$, $p < .001$, and a poorer HS, $r = .38$, $p < .001$. Higher STSS was also associated with poorer HS, $r = .31$, $p < .001$ and lower CS, $r = -.28$, $p < .001$, and higher CS was also associated with the same or better HS, $r = -.21$, $p < .01$.

Multivariate Regression Results

Regression results are presented in Table 4. The simultaneous regression predicting BO accounted for 18.5% of the variance (Adj. $R^2 = 0.168$), $F(3, 142) = 10.78$, $p < .001$; predictors of elevated BO were higher training retraumatization, higher field stress, and decreased SC effort. The simultaneous regression predicting STSS accounted for 31.5% of the variance (Adj. $R^2 = 0.292$), $F(5, 147) = 13.51$, $p < .001$; predictors of higher STSS were higher levels of training retraumatization and field stress, and lower SC effort. The simultaneous regression predicting CS accounted for 25.7% of the variance (Adj. $R^2 = 0.225$), $F(6, 139) = 8.002$, $p < .001$; predictors of higher CS included older age, higher field client traumatization, field work that more often addressed trauma, increased SC effort, and lower field stress. The logistic regression predicting decline in HS indicated that both field stress and SC effort change were significantly associated with the likelihood of a decline in HS. Given a 1 *SD* increase, the odds of a decline in HS were 1.60 (Wald = 7.24, $p = .007$) for field stress and 0.38 (Wald = 18.91, $p < .001$) for SC effort.

Table 4
Summary of Regression Analyses for Outcomes

Outcomes	β	*t*	*p*
Predictors			
Burnout			
Training retraumatization	.229	2.97	.003
Field stress	.252	3.23	.002
Self-care effort change	−.183	−2.39	.018
Secondary traumatic stress symptoms			
Experience of fear/helplessness/horror	.091	1.26	.211
Training retraumatization	.375	5.31	.000
Field stress	.204	2.79	.006
Coursework stress	.115	1.62	.107
Self-care effort change	−.161	−2.29	.024
Compassion satisfaction			
Age	.219	2.88	.005
Field clients traumatized	.168	2.08	.039
Field work addresses trauma	.254	3.17	.002
Field stress	−.154	−2.03	.044
Self-care importance	.106	1.41	.162
Self-care effort change	.178	2.36	.020
Decline in health status	*b* (*SE*)	*OR*	*p*
Field stress	.468 (.174)	1.60	.007
Self-care effort change	−.977 (.225)	.38	.000

Note. Decline in health status (HS) is a dichotomous variable (no change in HS + improved HS vs. decline in HS); Training retraumatization is the sum of field and coursework retraumatization.

Discussion

The main goals of this study were to examine potential trauma exposures during clinical training and to explore the role of training-related risk and protective factors in training-related outcomes. This study is the first that we are aware of that examines different aspects of secondary trauma exposure (including reactions) during training. Since participants were enrolled in a training program with a trauma content-infused curriculum, we expected students to report exposure to such material. Nonetheless, we were surprised that so many reported experiencing fear, helplessness, or horror in reaction to these exposures and/or a reactivation of upsetting thoughts and feeling from their own histories, particularly from exposures in coursework.

Given that trauma is pervasive in the histories of mental health clients and those seeking social services (reviewed in Jennings, 2004), it was not unexpected that virtually all students reported that their field clients had experienced trauma to some extent, even if their field setting was not specifically clinical. However, more than half of students were placed in nonclinical settings (first-year students do not receive clinical placements and some advanced-year students choose macro settings), and so it was unexpected that most students would report that their field work addressed trauma. We believe that this endorsement may mean, at least in some cases, that students recognize that they are dealing with the effects of trauma even if they are not directly treating it. A trauma-informed care approach (Harris & Fallot, 2001) is taught throughout our training program, and so all students learn how traumatic experience may figure in the lives of their clients. Consequently, students in child welfare settings, for example, know about the rates of trauma histories in this population (Fusco & Cahalane, 2013), and may reasonably assume that their work addresses the effects of trauma, even if they are not providing trauma-specific treatment (Harris & Fallot, 2001).

Our results also provide evidence that graduate training that incorporates trauma can involve secondary exposures not only in field but also in coursework, and contrary to our expectations, students reported coursework to be at least as reactivating as fieldwork. Though research on the impact of such exposures during training is sparse, our results are consistent with previous findings that exposures during coursework and field training can result in trauma symptoms for some students (Adams & Riggs, 2008; Knight, 2010; Shannon et al., 2014; Zosky, 2013). A majority in the present sample reported some degree of current secondary trauma symptoms, and the mean was somewhat higher than that reported for licensed master's level social workers (Bride, 2007). This finding may be similar to the elevated symptoms found among volunteer caregivers when compared with professionals (Avieli, Ben-David, & Levy, 2016).

The results also support students' anecdotal (and often quite emphatic) assertions that training is stressful; the mean for coursework stress fell in the "very stressful" range. Nonetheless, on average, students in this sample scored in the low range for BO (Stamm, 2010). Of note, students appraised coursework to be significantly more stressful than field work, which we believe may

reflect the (transiently) elevated coursework time demands at semester's end, especially for students who also work or have additional family responsibilities. (Previous pilot findings indicated that students designate time demands as the single biggest contributor to their stress.) Additionally, coursework stress and training retraumatization were not related, while field stress and training retraumatization were, and field stress was more predictive of BO and trauma symptoms than was coursework stress and increased the risk of an HS decline by more than 50%. These findings suggest that the stress reported in each setting differs in kind, and that field stress has more far-reaching and significant effects and consequently may be a more useful gauge of student stress. Future research is needed to explore the sources of the differences in coursework and field stress and why the latter seems to be more harmful than the former.

Reduced SC effort was related to higher appraisals of stress and higher BO and STSS scores in this sample, yet increasing that effort may offer some protection. An increase in SC effort was associated with higher levels of CS, and it decreased the odds of a decline in HS by almost two thirds. Students in our program are encouraged to use the available SC resources, but SC practice is not required (with a few exceptions determined by individual instructors). Moreover, students were not asked to describe the extent of SC they practiced during training, only whether or not it had changed; thus, the present data provide no information on optimal practice levels, only that increases may confer benefits, while decreases may be detrimental. It is possible that SC is advantageous both prior to and after exposure, just as exercise may both help prevent and heal injury. Nonetheless, our SC findings provide preliminary support for the calls to include SC in the training curriculum in order to prevent or address stress and trauma symptoms. To our knowledge, this is the first study to provide such empirical evidence.

Negative outcomes associated with trauma exposures and stress during clinical training, whether in class or placements, are a concern both because of possible negative health and well-being impacts on trainees and the potential negative impact on learning (Perry, 2006) and student retention. Attention to trainee impairment is important because both academic (e.g., reading and writing) and nonacademic (e.g., empathy) skills are necessary for effective professional practice (Figley, 1999; Wolf, Green, Nochajski, & Kost, 2014). However, our findings also indicate that working with trauma can be rewarding for many students: CS was associated with older age (although the age range in this sample was limited), work in field settings with traumatized clients, work that addressed trauma, increases in SC effort, and lower field stress. These results suggest that helping traumatized clients is not *necessarily* a risk for helping professionals.

Limitations

The present study has several important limitations. The survey was conducted during the last few weeks of a spring semester, which may have affected response rates; however, past research indicates that helping professional response rates around 50% are not atypical (e.g., Bride, 2007; Elliott & Guy, 1993). End-of-semester demands and stress, as well as clinical trainee attunement to their own internal states, may have elevated reports of stress, trauma symptoms, and declines in HS. The majority of the sample comprised young White females, and this lack of demographic diversity may limit the generalizability of these findings to students who are male or transgender, or of other races/ethnicities and ages. The use of MSW students participating in a program with a trauma-infused curriculum that offers SC resources may also reduce the generalizability of findings to students in other professional training programs or those without such features. Conclusions about the direction of causality between trauma exposures, stress, SC, and outcomes are all limited by the cross-sectional design. Longitudinal studies examining all these variables over the course of training are needed.

There are also limitations with the single-item questions that were employed. Changes in both SC practice and HS were assessed by student reflection without assessments at the start of the program, nor information about levels during the program. Of most concern is that the "no change" category for SC practice could have been endorsed by a student who has never deliberately practiced SC as equally as by a student with a consistent and extensive daily regimen. Nonetheless, the SC variable appeared to capture something about the importance of increasing or decreasing practice. Similarly, the construct of retraumatization is a challenge to operationalize because students may not be consciously aware of their responses or identify their source, or they may report remembering upsetting past events that do not strictly qualify as traumatic experiences. There are currently no instruments available that we know of to measure retraumatization. Finally, additional research that encompasses a wider range of possible secondary trauma exposures would be valuable to more fully illuminate this aspect of risk for trainees.

Implications

By providing evidence of trauma exposures in training and their relationship to stress and traumatic stress among trainees, the study findings are relevant to consideration of how students in clinical training are educated in the future. The findings also suggest that a greater curricular emphasis on the development and continued utilization of SC resources is warranted, and this may, in turn, better prepare students to be more resilient to the stressors they will inevitably encounter in their professional lives. Additionally, because mental health issues in practitioners can affect the quality of service delivery (Collins, 2006; Rudolph, Stamm, & Stamm, 1997, as cited in Bride et al., 2004), findings may inform placement practices (e.g., trauma caseloads, trauma-specific supervision) and impairment policies (e.g., Robbins, 2016; Wolf et al., 2014).

Our findings also draw attention to the need to adopt a trauma-informed approach to *curriculum delivery*. To be trauma-informed, in any context, is to understand the ways in which traumatic experience may have impacted the lives of the individuals involved, and apply that understanding to the provision of services and design of systems (Harris & Fallot, 2001). Along with the increasing recognition of trauma among mental health and other clients and the resulting need for trauma-informed care in practice settings (Butler, Critelli, & Rinfrette, 2011; Harris & Fallot, 2001; Jennings, 2004; Substance Abuse and Mental Health Services Administration, 2014), the field is also starting to identify the prevalence and impact of past trauma among clinical trainees. Although some clinical educators and researchers have shared thoughtful strategies for teaching about trauma (e.g., Black, 2006;

Cunningham, 2004; Mattar, 2011; McCammon, 1999; Miller, 2001; O'Halloran & O'Halloran, 2001; Zurbriggen, 2011), some of which are explicitly trauma-informed (Carello & Butler, 2015), these approaches have only anecdotal support to date. A trauma-informed approach to curriculum delivery is essential, both because of the trauma exposures and stress described in the present study, and because the hierarchical nature of professional education puts students in a role more similar to clients than clinicians. For these reasons, further research should examine not only individual factors, but also organizational factors such as supervision and policies and procedures related to curriculum delivery.

References

Adams, S. A., & Riggs, S. A. (2008). An exploratory study of vicarious trauma among therapist trainees. *Training and Education in Professional Psychology, 2,* 26–34. http://dx.doi.org/10.1037/1931-3918.2.1.26

Agllias, K. (2012). Keeping safe: Teaching undergraduate social work students about interpersonal violence. *Journal of Social Work Practice, 26,* 259–274. http://dx.doi.org/10.1080/02650533.2011.610890

American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (4th ed., revised). Washington, DC: Author.

Avieli, H., Ben-David, S., & Levy, I. (2016). Predicting professional quality of life among professional and volunteer caregivers. *Psychological Trauma: Theory, Research, Practice and Policy, 8,* 80–87. http://dx.doi.org/10.1037/tra0000066

Badali, M. A., & Habra, M. E. (2003). Self-care for psychology students: Strategies for staying healthy & avoiding burn out. *Psynopsis: Canada's Psychology Newspaper, 25,* 14.

Baird, K., & Kracen, A. C. (2006). Vicarious traumatization and secondary traumatic stress: A research synthesis. *Counselling Psychology Quarterly, 19,* 181–188. http://dx.doi.org/10.1080/09515070600811899

Black, T. G. (2006). Teaching trauma without traumatizing: Principles of trauma treatment in the training of graduate counselors. *Traumatology, 12,* 266–271. http://dx.doi.org/10.1177/1534765606297816

Bride, B. E. (2004). The impact of providing psychosocial services to traumatized populations. *Stress, Trauma and Crisis: An International Journal, 7,* 29–46. http://dx.doi.org/10.1080/15434610490281101

Bride, B. E. (2007). Prevalence of secondary traumatic stress among social workers. *Social Work, 52,* 63–70. http://dx.doi.org/10.1093/sw/52.1.63

Bride, B. E., Robinson, M. M., Yegidis, B., & Figley, C. R. (2004). Development and validation of the secondary traumatic stress scale. *Research on Social Work Practice, 14,* 27–35. http://dx.doi.org/10.1177/1049731503254106

Bussey, M. C. (2008). Trauma response and recovery certificate program: Preparing students for effective practice. *Journal of Teaching in Social Work, 28,* 117–144. http://dx.doi.org/10.1080/08841230802179118

Butler, L. D., Critelli, F. M., & Rinfrette, E. S. (2011). Trauma-informed care and mental health. *Directions in Psychiatry, 31,* 197–210.

Carello, J., & Butler, L. D. (2015). Practicing what we teach: Trauma-informed educational practice. *Journal of Teaching in Social Work, 35,* 262–278. http://dx.doi.org/10.1080/08841233.2015.1030059

Collings, J. A., & Murray, P. J. (1996). Predictors of stress amongst social workers: An empirical study. *British Journal of Social Work, 26,* 375–387. http://dx.doi.org/10.1093/oxfordjournals.bjsw.a011101

Collins, S. (2006). Mental health difficulties and the support needs of social work students: Dilemmas, tensions, and contradictions. *Social Work Education, 25,* 446–460. http://dx.doi.org/10.1080/02615470600738809

Collins, S., Coffey, M., & Morris, L. (2010). Social work students: Stress, support and well-being. *British Journal of Social Work, 40,* 963–982. http://dx.doi.org/10.1093/bjsw/bcn148

Courtois, C. A., & Gold, S. N. (2009). The need for inclusion of psychological trauma in the professional curriculum: A call to action. *Psychological Trauma: Theory, Research, Practice and Policy, 1,* 3–23. http://dx.doi.org/10.1037/a0015224

Cunningham, M. (2004). Teaching social workers about trauma: Reducing the risks of vicarious traumatization in the classroom. *Journal of Social Work Education, 40,* 305–317.

Cushway, D. (1992). Stress in clinical psychology trainees. *British Journal of Clinical Psychology, 31,* 169–179. http://dx.doi.org/10.1111/j.2044-8260.1992.tb00981.x

Didham, S., Dromgole, L., Csiernik, R., Karley, M. L., & Hurley, D. (2011). Trauma exposure and the social work practicum. *Journal of Teaching in Social Work, 31,* 523–537. http://dx.doi.org/10.1080/08841233.2011.615261

Elliott, D. M., & Guy, J. D. (1993). Mental health professionals versus non-mental-health professionals: Childhood trauma and adult functioning. *Professional Psychology: Research and Practice, 24,* 83–90. http://dx.doi.org/10.1037/0735-7028.24.1.83

Felitti, V. J., Anda, R. F., Nordenberg, D., Williamson, D. F., Spitz, A. M., Edwards, V., . . . Marks, J. S. (1998). Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults. The Adverse Childhood Experiences (ACE) Study. *American Journal of Preventive Medicine, 14,* 245–258. http://dx.doi.org/10.1016/S0749-3797(98)00017-8

Figley, C. R. (1999). Compassion fatigue: Toward a new understanding of the costs of caring. In B. H. Stamm (Ed.), *Secondary traumatic stress: Self-care issues for clinicians, researchers, and educators* (pp. 3–28). Lutherville, MD: Sidran Press.

Figley, C. R. (2002). Compassion fatigue: Psychotherapists' chronic lack of self-care. *Journal of Clinical Psychology, 58,* 1433–1441. http://dx.doi.org/10.1002/jclp.10090

Freudenberger, H. (1977). Burnout: Occupational hazard of the child care worker. *Child Care Quarterly, 6,* 90–99. http://dx.doi.org/10.1007/BF01554695

Fusco, R. A., & Cahalane, H. (2013). Young children in the child welfare system: What factors contribute to trauma symptomology? *Child Welfare, 92,* 37–58.

Green, B. L., & Kimerling, R. (2004). Trauma, posttraumatic stress disorder, and health status. In P. P. Schnurr & B. L. Green (Eds.), *Trauma and health: Physical health consequences of exposure to extreme stress* (pp. 13–42). Washington, DC: American Psychological Association. http://dx.doi.org/10.1037/10723-002

Harris, M., & Fallot, R. D. (Eds.). (2001). *Using trauma theory to design service systems*. San Francisco, CA: Jossey-Bass.

Jennings, A. (2004). *The damaging consequences of violence and trauma: Facts, discussion points, and recommendations for the behavioral health system*. Alexandria, VA: National Association of State Mental Health Program Directors, National Technical Assistance Center for State Mental Health Planning.

Knight, C. (2010). Indirect trauma in the field practicum: Secondary traumatic stress, vicarious trauma, and compassion fatigue among social work students and their field instructors. *The Journal of Baccalaureate Social Work, 15,* 31–52.

Knight, C. (2013). Indirect trauma: Implications for self-care, supervision, the organization, and the academic institution. *The Clinical Supervisor, 32,* 224–243. http://dx.doi.org/10.1080/07325223.2013.850139

Maslach, C., Schaufeli, W. B., & Leiter, M. P. (2001). Job burnout. *Annual Review of Psychology, 52,* 397–422. http://dx.doi.org/10.1146/annurev.psych.52.1.397

Mattar, S. (2011). Educating and training the next generations of traumatologists: Development of cultural competencies. *Psychological Trauma: Theory, Research, Practice and Policy, 3,* 258–265. http://dx.doi.org/10.1037/a0024477

McCammon, S. L. (1999). Painful pedagogy: Teaching about trauma in

academic and training settings. In B. H. Stamm (Ed.), *Secondary traumatic stress: Self-care issues for clinicians, researchers, and educators* (2nd ed., pp. 105–120). Baltimore, MD: Sidran Press.

McCann, L., & Pearlman, L. A. (1990). Vicarious traumatization: A framework for understanding the psychological effects of working with victims. *Journal of Traumatic Stress, 3,* 131–149. http://dx.doi.org/10.1007/BF00975140

McEwen, B. S. (2012). Brain on stress: How the social environment gets under the skin. *PNAS Proceedings of the National Academy of Sciences of the United States of America, 109,* 17180–17185. http://dx.doi.org/10.1073/pnas.1121254109

Miller, M. (2001). Creating a safe frame for learning: Teaching about trauma and trauma treatment. *Journal of Teaching in Social Work, 21,* 159–176. http://dx.doi.org/10.1300/J067v21n03_12

Neumann, D. A., & Gamble, S. J. (1995). Issues in the professional development of psychotherapists: Countertransference and vicarious traumatization in the new trauma therapist. *Psychotherapy: Theory, Research, Practice, Training, 32,* 341–347. http://dx.doi.org/10.1037/0033-3204.32.2.341

Newell, J. M., & MacNeil, G. A. (2010). Professional burnout, vicarious trauma, secondary traumatic stress, and compassion fatigue: A review of theoretical terms, risk factors, and preventive methods for clinicians and researchers. *Best Practices in Mental Health: An International Journal, 6,* 57–68.

Newell, J. M., & Nelson-Gardell, D. (2014). A competency-based approach to teaching professional self-care: An ethical consideration for social work educators. *Journal of Social Work Education, 50,* 427–439.

O'Halloran, M. S., & O'Halloran, T. (2001). Secondary traumatic stress in the classroom: Ameliorating stress in graduate students. *Teaching of Psychology, 28,* 92–97. http://dx.doi.org/10.1207/S15328023TOP2802_03

Pakenham, K. I., & Stafford-Brown, J. (2012). Stress in clinical psychology trainees: A review of current research and future directions. *Australian Psychologist, 47,* 147–155. http://dx.doi.org/10.1111/j.1742-9544.2012.00070.x

Pearlman, L. A., & Saakvitne, K. (1995). *Trauma and the therapist: Countertransference and vicarious traumatization in psychotherapy with incest survivors*. New York, NY: Norton.

Perry, B. D. (2006). Fear and learning: Trauma-related factors in the adult education process. *New Directions for Adult and Continuing Education, 2006,* 21–27. http://dx.doi.org/10.1002/ace.215

Robbins, S. P. (2016). From the editor—Sticks and stones: Trigger warnings, microaggressions, and political correctness. *Journal of Social Work Education, 52,* 1–5.

Rosenbloom, D. J., Pratt, A. C., & Pearlman, L. A. (1999). Helpers' responses to trauma work: Understanding and intervening in an organization. In B. H. Stamm (Ed.), *Secondary traumatic stress: Self-care issues for clinicians, researchers, and educators* (pp. 65–79). Lutherville, MD: Sidran Press.

Shannon, P. J., Simmelink, J., Im, H., Becher, E. & Crook-Lyon, R. E. (2014). Exploring the experiences of survivor students in a course on trauma treatment. *Psychological Trauma: Theory, Research, Practice and Policy, 6,* S107–S115. http://dx.doi.org/10.1037/a0032715

Stamm, B. H. (2010). *The concise ProQOL manual* (2nd ed). Pocatello, ID: ProQOL.org

Substance Abuse and Mental Health Services Administration. (2014). *SAMHSA's concept of trauma and guidance for a trauma-informed approach*. Rockville, MD: Author. Retrieved from http://store.samhsa.gov/shin/content/SMA14-4884/SMA14-4884.pdf

Tobin, P. J., & Carson, J. (1994). Stress and the student social worker. *Social Work and Social Sciences Review, 5,* 246–255.

Wolf, M. R., Green, S. A., Nochajski, T. H., & Kost, K. A. (2014). Graduate student impairment: The impact on counselor training programs. *Journal for International Counselor Education, 6,* 61–74.

Zosky, D. (2013). Wounded healers: Graduate students with histories of trauma in a family violence course. *Journal of Teaching in Social Work, 33,* 239–250. http://dx.doi.org/10.1080/08841233.2013.795923

Zurbriggen, E. L. (2011). Preventing secondary traumatization in the undergraduate classroom: Lessons from theory and clinical practice. *Psychological Trauma: Theory, Research, Practice and Policy, 3,* 223–228. http://dx.doi.org/10.1037/a0024913

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Correction to Butler, Carello, and Maguin (2016)

In the article "Trauma, Stress, and Self-Care in Clinical Training: Predictors of Burnout, Decline in Health Status, Secondary Traumatic Stress Symptoms, and Compassion Satisfaction" by Lisa D. Butler, Janice Carello, and Eugene Maguin (*Psychological Trauma: Theory, Research, Practice, and Policy*, Advance online publication. September 12, 2016. http://dx.doi.org/10.1037/tra0000187), there was an error in Table 4 of the Results. The Outcomes and Predictors columns were not clearly categorized from one another. The table should read as follows:

Table 4
Summary of Regression Analyses for Outcomes

Outcomes	Predictors	β	*t*	*p*
Burnout	Training retraumatization	.229	2.97	.003
	Field stress	.252	3.23	.002
	Self-care effort change	−.183	−2.39	.018
Secondary traumatic stress symptoms	Experience of fear/helplessness/ horror	.091	1.26	.211
	Training retraumatization	.375	5.31	.000
	Field stress	.204	2.79	.006
	Coursework stress	.115	1.62	.107
	Self-care effort change	−.161	−2.29	.024
Compassion satisfaction	Age	.219	2.88	.005
	Field clients traumatized	.168	2.08	.039
	Field work addresses trauma	.254	3.17	.002
	Field stress	−.154	−2.03	.044
	Self-care importance	.106	1.41	.162
	Self-care effort change	.178	2.36	.020
		b (*SE*)	*OR*	*p*
Decline in health status	Field stress	.468 (.174)	1.60	.007
	Self-care effort change	−.977 (.225)	.38	.000

Decline in health status (HS) is a dichotomous variable (no change in HS + improved HS vs. decline in HS); Training retraumatization is the sum of field and coursework retraumatization. sum of field and coursework retraumatization.

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