

Stress versus Eustress: Evaluating the Effects of Compassion Fatigue and Secondary Traumatic Stress on Agricultural Educator Burnout

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Abstract

Traumatic events occurring during childhood (0-17 Years), or Adverse Childhood Experiences (ACEs), can have a negative influence on the life of the afflicted individual, including a substantially higher risk of addiction, poverty, cardiac issues, diabetes, and early death. These negative repercussions of ACEs can be mitigated through appropriate teacher-student relationships. Agricultural educators report supporting students with ACEs regularly, but are not confident in their abilities to emotionally support students in these unique situations. This ambiguity in the role of educators in supporting students with ACEs can cause compassion fatigue, secondary traumatic stress (STS), and, ultimately, burnout, which has proven to be one of the leading causes of agricultural educator attrition. This study sought to compare the effects of STS on the burnout of agricultural educators. The author utilized the Professional Quality of Life (ProQOL) survey to measure STS and burnout and gathered 59 usable responses. The author used linear regression to compare STS's effect on agricultural educator burnout, resulting in a statistically significant interaction that suggests STS contributes to teacher burnout. The findings lead the author to recommend providing mental health services to educators experiencing STS and offering training on strategies to support students facing ACEs.

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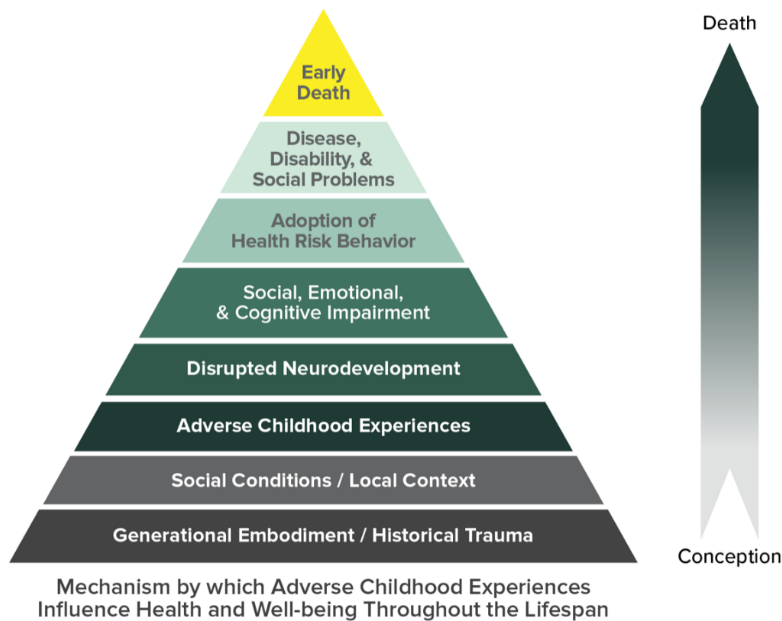
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Introduction and Problem Statement

Unfortunately, many students enrolled in agricultural education are experiencing ACEs (Norris & Norris-Parish, 2024) such as physical, emotional, or sexual abuse, parental divorce, neglect, etc. (Petruccelli et al., 2019). The presence of four or more ACEs can increase participation in risky behavior, such as being seven times more likely to abuse alcohol, 10 times more likely to use illicit drugs, and 12 times more likely to attempt suicide than individuals with no ACEs (Reavis et al., 2013). Additionally, individuals with ACEs have a significantly increased risk of health issues such as diabetes, addiction, and cardiac disease (Metzler et al., 2017; Murphey & Sacks, 2019; Petruccelli et al., 2019). Norris and Norris-Parish (2024) determined that agricultural educators often emotionally support students with ACEs but do not feel confident supporting students experiencing certain situations. Additionally, Schmidt et al. (2022) found that compassion fatigue from emotionally supporting students with ACEs can lead to secondary traumatic stress (STS) and contribute to educator burnout among early career educators in Oregon. One of the most significant challenges facing agricultural education is the difficulty of retaining quality agricultural educators (Lemons et al., 2015), and burnout has proven to be one of the primary factors driving educators out of the profession (Sorensen et al., 2016). Schmidt et al.'s (2022) findings suggest that STS is a significant contributor to burnout and attrition. Furthermore, Norris and Norris-Parish (2024) determined that approximately 10.4% of agricultural educators have personally experienced ACEs and are navigating their harmful effects. This combination of STS, compassion fatigue, and burnout, along with navigating personal trauma, could put some educators at an increased risk of negative health repercussions (Norris et al., 2025). Swedo (2023) reported that New Mexico has an above-average incidence of ACEs, and assessing the effects of STS on New Mexico educators' burnout could provide critical insight into this issue.

Theoretical and Conceptual Framework

The contemporary trauma theory (CTT; Goodman, 2017) guided this study in its effort to quantify compassion fatigue and STS' effects on educator burnout. This theory aims to provide insight into the effects of ACEs on psychosocial function and how coping and resilience affect the behavior of individuals struggling with ACEs and ultimately mitigate the negative repercussions associated with multiple traumas (Goodman, 2017). Goodman (2017) stated that childhood trauma can negatively affect a "person's sense of control, which may lead to maladaptive internalization of the event. Such maladaptive internalization may result in disturbance to bio-psychosocial functioning, healthy development, and brain performance in regions that are related to emotions, behavior, and executive functioning" (p. 187). This negative effect on brain development (Petruccelli et al., 2019; see Figure 1) is evident in the increased risky behavior of some individuals with ACEs.

Figure 1*Mechanisms Causing Long-Term Health Effects from ACEs*

Note. Model developed by the CDC (2023) and Felitti et al. (1998).

This disturbance to brain development can affect classroom behavior, and Scott et al. (2013) report that individuals with four or more ACEs are 32 times more likely to be labeled as a disciplinary issue and to have poor academic performance. The CTT relies on the curative nature of resilience and coping and operationalizes trauma-informed strategies to influence behavior. In the context of this study, if agricultural educators can be equipped to implement the CTT effectively, it could reduce STS and burnout, improve educator confidence, and ultimately mitigate the long-term effects of ACEs for some SBAE students.

Purpose

This study sought to replicate Schmidt et al.'s (2022) study with New Mexico agricultural educators and evaluate compassion fatigue and STS on educator burnout. The following research objectives guided this study:

1. Assess the participating agricultural educators' compassion satisfaction, secondary traumatic stress, and burnout scores.
2. Evaluate the effects of secondary traumatic stress on agricultural educator burnout.

Methods

This study utilized a descriptive correlational research design to assess STS's effect on agricultural educator burnout. The population for this study was agricultural educators in New

Mexico ($N = 132$). To maximize participation and increase the study's response rate, the author asked agricultural educators present at the 2024 summer teacher conference to complete the electronic survey. After the conference, the researcher distributed the survey to all agricultural educators in New Mexico and asked them to participate if they had not completed the survey at the conference. This effort yielded 67 responses, which equates to a 50.8% response rate. Within the 67 responses, there were $n = 59$ complete responses and $n = 8$ incomplete responses. The incomplete responses were excluded from parametric analysis due to insufficient data. The demographics of the participating agricultural educators determined that 55.9% of participants were female ($f = 33$), 62.7% were in the early stage of their career ($f = 37$), 69.5% taught in a rural school system ($f = 41$), and 91.5% hold either a bachelor's or master's degree.

This study sought to replicate Schmidt et al.'s (2022) inquiry. The instrument utilized in this study was developed from the Professional Quality of Life (ProQOL) survey (Stamm, 2010). The ProQOL survey measures three constructs, including *compassion satisfaction* (pleasure you derive from being able to support students), *burnout* (fatigue, frustration, animosity towards your career), and *secondary traumatic stress* (stress derived from supporting individuals with trauma) (Stamm, 2010). The ProQOL survey asked participants to rate how often they felt a particular emotion towards their work in the last 30 days and utilized a five-point Likert scale ranging from 1 = *Never*, 2 = *Rarely*, 3 = *Sometimes*, 4 = *Often*, and 5 = *Very Often* to measure 31 items. The instrument was modified, and the word "helper" was replaced with "teacher" to better represent the population. The scores from these items are totaled to calculate each participant's final compassion satisfaction, STS, and burnout scores. When calculating the burnout scores, five positively worded items must be reverse-coded to determine an accurate burnout measurement (Stamm, 2010).

The instrument's reliability was measured *post hoc* using Cronbach's alpha reliability coefficients, which ranged from .75 to .92. According to Ary et al. (2010), these reliability coefficients meet the minimum threshold for a reliable analysis. The instrument's validity was assessed by a committee of two New Mexico State University faculty members who evaluated its content, construct, and face validity for this population and deemed it acceptable. Additionally, the reliability and validity of the ProQOL instrument have been measured in 200+ studies and deemed appropriate (Stamm, 2010). The data for research objective one was analyzed using central tendencies, and research objective two was analyzed using linear regression and correlation coefficients. All the data in this study were analyzed using SPSS v. 28.0.

To evaluate non-response bias, the data of those who responded at the conference ($n = 54$), and those who responded to the email after the conference ($n = 6$) were compared using independent samples *t*-tests. Lindner et al. (2001) suggested contacting non-responders to collect their response and then comparing the two groups. The research accomplished this non-response strategy by distributing an email after the conference to collect data from non-responders. The results suggested that there were no statistically significant non-response

issues for burnout $t(57) = -1.87, p = .85$, or compassion satisfaction $t(57) = .68, p = .50$, and STS $t(57) = -.02, p = .99$.

The results of this study are limited to the respondents because of the response rate. Krejcie and Morgan (1970) suggested that the sample size for a population of $N = 132$ should be $n = 99$ to generalize to the entire population. This study received $n = 59$ usable responses, so the results should not be generalized beyond the participants in this study.

Findings

Research Objective One

The first research objective aimed to assess New Mexico agricultural educators' compassion satisfaction, STS, and burnout. The ProQOL survey utilized a five-point Likert scale with 31 items to measure these areas. The compassion satisfaction scale used 10 items to calculate the score, STS used 11, and burnout used 10 based on the ProQOL self-score guide (Stamm, 2010). Stamm (2010) suggests that a score of 22 or less indicates low impact, a moderate score is between 23-41, and a high score is 42+. The results of this analysis suggested that the average participant gains moderate to high satisfaction ($M = 40.08, SD = 5.76$) from helping their students with traumatic situations such as ACEs. The compassion satisfaction scores in this study ranged from 28 to 49, suggesting that all participants received moderate to high compassion satisfaction scores. Furthermore, 55.9% of participants had moderate compassion satisfaction scores, and 44.1% had high compassion satisfaction scores. This finding aligns with Solomonson et al. (2021), who suggested that teachers' ability to engage students and their attitude toward students were among the top factors causing them to retain their career in SBAE. Agricultural educators' deep admiration for their students causes many of them to retain their careers as educators (Solomonson et al., 2021) and leads them to support students with ACEs regularly (Norris et al., 2024).

While this study's moderate to high compassion satisfaction scores are positive, the average participant also had moderate STS ($M = 22.76, SD = 4.76$) from supporting students with traumatic situations. The STS scores ranged from 14 to 33, with 47.5% ($f = 28$) reporting low STS and 52.5% ($f = 31$) reporting moderate levels of STS. Schmidt et al. (2022) suggested that compassion fatigue and STS significantly contribute to burnout in early-career agricultural educators in Oregon. Furthermore, Sorensen et al. (2016) determined that burnout is one of the leading causes of teacher attrition, which has plagued the profession for decades (Lemons et al., 2015).

The average participant in this study reported moderate levels of burnout ($M = 24.15, SD = 5.53$). The burnout scores ranged from 12 to 26, with 40.7% ($f = 24$) reporting low levels and 59.3% ($f = 35$) reporting moderate levels (see Table 2). Table 2 reports each item's means and standard deviations and construct scores for compassion satisfaction, STS, and burnout.

Table 2*Summative Scores for Compassion Satisfaction, STS, and Burnout.*

Category	<i>M</i>	<i>SD</i>
Compassion Satisfaction Scale	40.08	5.76
I get satisfaction from being able to teach others.	4.29	.67
I feel invigorated after working with those I teach.	3.53	.65
I like my work as a teacher.	4.37	.69
I am pleased with how I am able to keep up with teaching techniques and protocols.	3.53	.82
My work makes me feel satisfied.	3.97	.77
I have happy thoughts and feelings about those I teach and how I could help them.	4.05	.75
I believe I can make a difference through my work.	4.25	.80
I am proud of what I can do teaching.	4.25	.80
I have thoughts that I am a "success" as a teacher.	3.63	.83
I am happy that I chose to do this work.	4.22	.77
Secondary Traumatic Stress (STS)	22.76	4.76
I am preoccupied with more than one person I teach.	3.73	.98
I jump or am startled by unexpected sounds.	2.53	.82
I find it difficult to separate my personal life from my life as a teacher.	3.22	1.1
I think that I might have been affected by the traumatic stress of those I teach.	2.10	.80
Because of my teaching, I have felt "on edge" about various things.	2.51	1.01
I feel depressed because of the traumatic experiences of the people I teach.	1.86	.68
I feel as though I am experiencing the trauma of someone I have taught.	1.76	.73
I avoid certain activities or situations because they remind me of frightening experiences of the people I teach.	1.61	.74
As a result of my teaching, I have intrusive, frightening thoughts.	1.61	.81
I can't recall important parts of my work with trauma victims.	1.83	.85
Burnout	24.15	5.53
I am happy.*	2.07	.76
I feel connected to others.*	2.05	.75
I am not as productive at work because I am losing sleep over traumatic	2.10	.74
I feel trapped by my job as a teacher.	2.05	.99
I have beliefs that sustain me.*	1.71	.85
I am the person I always wanted to be.*	2.41	.85
I feel worn out because of my work as a teacher.	3.56	1.01
I feel overwhelmed because my workload seems endless.	3.37	.96
I feel "bogged down" by the system.	3.07	1.07
I am a very caring person.*	1.76	.80

Note. The instrument was modified from the Professional Quality of Life (ProQOL) survey developed by Stamm (2010). The items designated with an asterisk (*) were reverse-coded following the ProQOL Self-Score Guide (Stamm, 2010). The Likert scale used in this study ranged from 1 = *Never*, 2 = *Rarely*, 3 = *Sometimes*, 4 = *Often*, to 5 = *Very Often*. The ProQOL measured compassion fatigue, STS, and Burnout using the following scale: Low is a score of 22 or less, Moderate is a score between 23-41, and High is a score of more than 42.

Research Objective Two

A simple linear regression was employed to execute objective two and measure the association between STS and burnout. The results of this analysis suggested that there is a statistically significant association between burnout and STS [$F(1, 57) = 38.87, p < .001$] with an adjusted R^2 of .40 (See Table 3). This suggests that STS explains 40% of the variance in burnout.

Additionally, the analysis suggested that as STS levels increase, burnout subsequently increases. These results complement the findings of Schmidt et al.'s (2022) inquiry.

Table 3

Regression Analysis Assessing STS Effect on Burnout

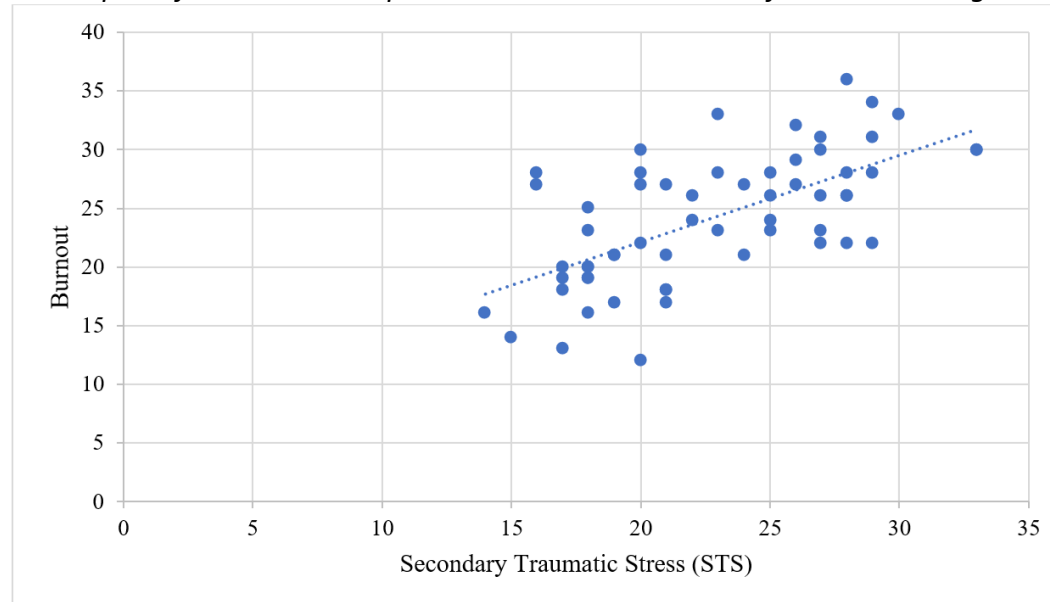
Variable	B	β	p
(Constant)	7.22	-	.01
STS	.74	.64	<.001

Note. $n = 59$

A bivariate correlation was also implemented to further assess the relationship between STS and burnout among New Mexico agricultural educators. A positive correlation was observed in the analysis using Pearson's correlation coefficient ($r = .64$). This correlation coefficient suggests a moderate to strong relationship between STS and burnout is present (Schober et al., 2018). Additionally, this positive correlation is represented visually in Figure 2.

Figure 2

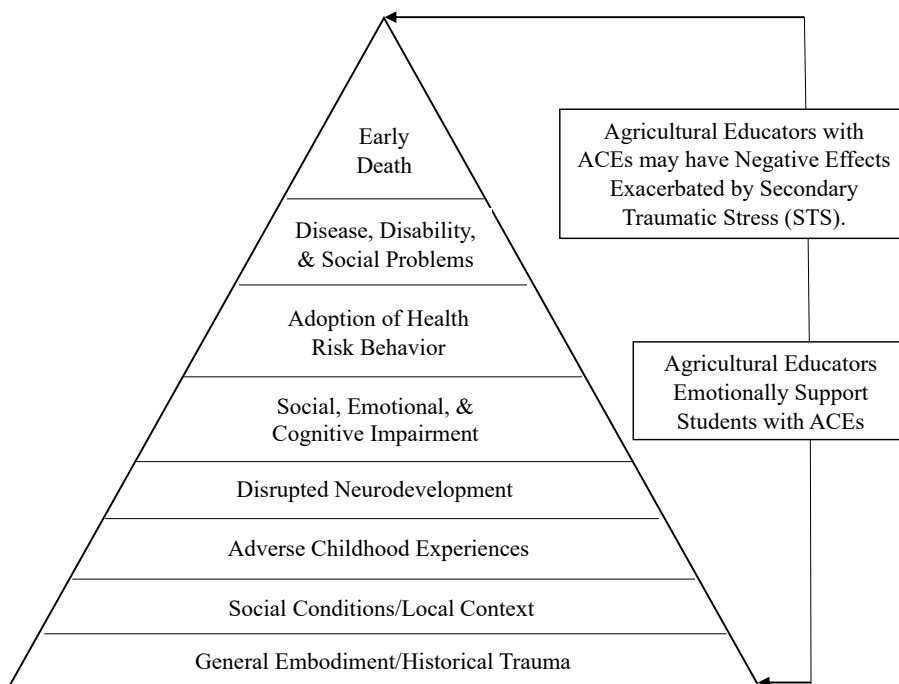
Scatterplot of the Relationship Between STS and Burnout of New Mexico Agricultural Educators



The positive correlation between STS and burnout creates concern for the profession due to the legal and ethical ramifications of supporting students with ACEs. Agricultural educators are bound by federal and state law to report suspected physical abuse (Rogerson, 2025). Additionally, many agricultural educators report emotionally supporting students with ACEs regularly (Norris et al., 2024), and some educators with prior trauma utilize personal stories to build rapport with students (Norris et al., 2025). This interaction could lead to inappropriate, unethical, or potentially illegal situations that could cause litigious concern for agricultural educators (Norris et al., 2025). Furthermore, Norris and Norris-Parish (2024) determined that approximately 10.4% of agricultural educators have four or more ACEs and, therefore, struggle with the negative repercussions associated with childhood trauma. When these repercussions are combined with STS and burnout, it could exacerbate these symptoms, especially if the educators are emotionally supporting students with similar situations to their past trauma (Norris et al., 2025). Norris et al. (2025) described this phenomenon and developed Figure 3 to visually represent this potentially destructive interaction.

Figure 3

Interaction Between the Negative Effects of ACEs and STS Experienced by Educators



Note. This model was developed by Norris et al. (2025) and was originally modified from the framework of Felitti et al. (1998) and CDC (2023).

Unfortunately, some populations have a higher incidence of ACEs, such as 32.4% of Native Americans, 31.5% of Multi-Race individuals, 23.2% of Native Hawaiian/Pacific Islanders, 18.6% of Hispanics, and 18.1% of African Americans having four or more ACEs (Swedo, 2023). Swedo (2023) found that New Mexico has comparatively high rates of ACEs and ranks among the top

10 states in some ACE areas, including 28.7% of the population experiencing physical abuse (3rd highest in the U.S.), 16.7% experiencing sexual abuse (2nd highest in the U.S.), 20.0% growing up around intimate partner abuse in the home (4th highest in the U.S.), and 31.9% experiencing substance abuse in the home (6th Highest in the U.S.). Larson et al. (2023) found a relationship between the prevalence of ACEs and food insecurity in the early stages of adulthood. Specifically, 45.3% of individuals with four or more ACEs were food insecure compared to 15.5% of individuals with no ACEs. This high prevalence of ACEs throughout New Mexico increases the need for intervention from trained adults to mitigate the negative effects of ACEs, such as food insecurity and health risks. Additionally, the high prevalence of ACEs in New Mexico could expose those educators to more students experiencing these traumatic situations, increase compassion fatigue and STS, and ultimately expose them to more risk if they are navigating personal trauma in addition to emotionally supporting students with ACEs.

Conclusions, Discussion, and Recommendations

The results of this study suggest a positive association between STS and burnout, similar to the findings of Schmidt et al. (2022). While agricultural educators in this study and Schmidt et al. (2022) report experiencing a moderate level of STS, Norris et al. (2024) determined that SBAE educators emotionally support students with ACEs regularly. Additionally, Norris et al. (2024) also found that students with ACEs are drawn toward agricultural educators due to their strong teacher-student relationships and the experiential instruction provided by SBAE. Furthermore, Norris et al. (2024) found that agricultural educators implement numerous strategies to support students with ACEs, such as providing food to students who lack nutrition at home, donating clothing for official FFA dress or to wear casually, and providing hygiene items to students. The agricultural educator often funds these strategies, which could cause additional financial stresses when combined with low teacher salaries (Hanushek, 2016).

The STS experienced by educators supporting students with ACEs can lead to compassion fatigue and burnout (Schmidt et al., 2022). The frequency at which agricultural educators interact with students with ACEs is significantly impacted by the socioeconomics of the school's population (Norris et al., 2024). This is particularly true in states with a high prevalence of ACEs, such as New Mexico. Agricultural educators in New Mexico are uniquely positioned to support a large population of students with ACEs, especially since these unique students are drawn to agricultural education (Norris et al., 2024). While the support of an adult, such as an agricultural educator, can positively impact the afflicted students by influencing behavior choices and ultimately mitigating the negative repercussions of ACEs, Norris and Norris-Parish (2024) found that agricultural educators are not confident in their abilities to support students with ACEs. Overall, educators were the least confident in supporting students with issues such as sexual abuse and abuse among intimate partners in the household (Blinded Citation 1). This lack of confidence could further exacerbate the STS experienced by agricultural educators and lead to additional burnout. The burnout of agricultural educators is one of the leading causes of attrition (Lemons et al., 2015), which has plagued the profession for decades (Sorensen et al., 2016). The attrition of agricultural educators caused the profession to lose 48 SBAE programs

and 86.5 positions in 26 states during the 2021-2022 academic year (Smith et al., 2023). This significant loss to the profession raises concerns about the effects of burnout and how to reduce teacher attrition.

As Norris et al. (2024) noted, agricultural educators cannot replace professional mental health services for students suffering from ACEs. While educators have a legal and ethical obligation to assist students in certain instances, supporting students with ACEs cannot solely fall on educators due to the resulting STS. Furthermore, Harding et al. (2019) determined that teacher mental health and well-being are direct indicators of student well-being. Therefore, if agricultural educators experience STS, compassion fatigue, and burnout, their effectiveness in supporting students emotionally could be stunted. The researcher recommends providing mental health services to educators facing STS to reduce the risk of burnout and subsequent attrition. Additionally, providing comprehensive professional development on emotionally supporting students with ACEs in a constructive, legal, and ethical manner is recommended. This training could improve educators' confidence in supporting students with ACEs and reduce STS and burnout.

The researcher also recommends investigating this phenomenon through additional research inquiry. A qualitative study describing the effects of compassion fatigue and STS could be beneficial in understanding this issue. Additionally, replicating this study in other states to determine if STS has a positive relationship with burnout among different populations of agricultural educators could be valuable.

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