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Social Workers' Growth, Identity, and Professional Quality of Life After Adverse Childhood Experiences

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Walden University
2023

Abstract

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by

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MA, Howard University, 2014

BS, Fayetteville State University, 2010

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Social Work

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Abstract

Adverse childhood experiences (ACEs) have been linked to long-term impairments involving neurobiological and epidemiological functions and increased risk for mental and physical health challenges. Many social workers have experienced a high number of ACEs, which increases risks for problems involving wellness, employment instability, and secondary traumatic stress (STS). However, the impact of total ACEs on social workers' identity, growth, and professional quality of life (PQL) is less known. Using a correlational cross-sectional design, this quantitative study involved examining the impact of total ACEs on posttraumatic growth (PTG), event centrality, and PQL (in terms of burnout, STS, and compassion satisfaction) for child welfare social workers. The PTG theory was the framework for the study. Data were collected using an online survey with a purposeful sample of 104 licensed social workers with at least one year of employment in child welfare in the Washington, DC metropolitan area. Spearman's rank-order correlation results indicated total scores for PTG, event centrality, STS, compassion satisfaction, and burnout were all weakly correlated with total ACEs that were experienced, with only total PTG levels having a statistically significant relationship with total ACEs. Polynomial regression analysis results indicated that total ACEs did not significantly predict PTG, event centrality, or PQL total scores. These findings can lead to administrative changes, including providing interventions that act as ACE treatments and prevention strategies. Preventing ACEs may reduce cases of adverse health outcomes and improve public health, leading to positive social change.

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Dedication

This dissertation is dedicated to every social worker whose ACEs propelled them into the field of social work and who have pushed through despite the overwhelmingness of this career.

This dissertation is also dedicated to my father, Nathaniel Reginald Williams. Your murder shook my world. However, the memory of your presence, both good and traumatic, pushed me toward my calling.

This dissertation is dedicated to my granny, Yvonne Lewis. You were my biggest cheerleader and no matter what adversity I faced in my childhood; you were always there to encourage me.

This dissertation is dedicated to the late Bishop Fernette Nichols. You told me, as a child, that I would be successful at anything I put my mind to. You introduced me to God and help me to know Him, for myself. That relationship you helped to cultivate has been a source of my posttraumatic growth. You also help me to realize that "hope is a good thing."

This dissertation is dedicated to every teacher that has been a resource of support throughout my childhood, specifically Cara Gafford. You saw a child who struggled, and you did not hesitate to step in. You took on multiple roles in my life over the years and I will forever cherish your mentorship, friendship, and sisterhood. I love you and thank you.

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Chapter 1: Introduction to the Study

Adverse childhood experiences (ACEs), defined as emotional, sexual, and physical abuse or neglect and family dysfunction experienced during childhood (Tranter et al., 2021), constitute a major social problem (Felitti et al., 1998; Manyema et al., 2018; Merrick et al., 2017; Steen et al., 2021). Child welfare professionals experience more ACEs than the general population (Branson et al., 2019; Howard et al., 2015; Steen et al., 2021). Whether social workers have comparatively more ACEs is inconsistent in literature. However, this population has a higher occurrence of ACE scores than the general population. Steen et al. (2021) found 23.6% of social workers who serve children and families reported exposure to four or more ACEs, compared to 12.5% of the general population. Further, four ACEs is considered in the high range. Four or more ACEs were associated with negative psychological, physical, and social changes and negative impacts on wellness, workplace issues, physical and mental health, substance use, and unhealthy coping skills for social workers (Lee et al., 2017; Steen et al., 2021).

Additionally, since 2015, knowledge has been acquired regarding social workers with ACE histories, including the impact their ACEs have on their practices (see Bosk et al., 2020), career choices (see Branson et al., 2019; Steen et al., 2021), professional quality of life (PQL; see Howard et al., 2015; Mott & Martin, 2019), self-care (see Lee et al., 2017; Mott & Martin, 2019), work issues (see Steen et al., 2021a; Steen et al., 2021b), and resilience (see Rose & Palattiyil, 2020). However, many of these studies focused on a broader group of child welfare professionals, including social workers, child pertective services workers, case managers, and resource providers. Thus, there are limited studies

focused directly on child welfare social workers. Furthermore, no studies have explored event centrality and posttraumatic growth (PTG) after social workers experience ACEs, while some studies have focused on the impact ACEs have on event centrality (see Tranter et al., 2021) and PTG (see Fraus et al., 2021; Tranter et al., 2021) among general populations.

Researchers have investigated the impact of ACEs; however, the topic has not been explored regarding the impact of ACEs on PTG, event centrality, and PQL for child welfare social workers. Through this study, the impact of ACEs on social workers' PTG following ACEs and the degree to which ACEs are understood to be essential to social workers' identity and PQL is addressed. I examined the impact of ACEs on child welfare social workers' PTG, event centrality, and PQL. The study will benefit social workers and social work administrators. It is my hope that this study's findings will lead to positive social change by supporting social worker's need need for improvement in social work administration policies and practices regarding support for social workers. I also hope that it will allow social work administrators to better identify necessary support for social workers. Further, findings may encourage social workers to improve their personal and professional wellbeing in order to promote further growth.

Howard et al. (2015) examined the relationship between ACEs, resilience, work environment, and PQL in terms of compassion satisfaction, secondary traumatic stress (STS), and burnout among child welfare professionals but did not focus specifically on social workers, nor did they examine PTG or event centrality. My study filled a gap in the literature as I explored the impact of ACEs by conducting a study and adding event

centrality and PTG as variables. For my study, negative impacts included burnout and STS, while positive impacts included compassion satisfaction, and PTG. The purpose of the study was to examine the impact of ACEs on PTG, event centrality, and professional PQL in terms of burnout, compassion satisfaction, and STS for child welfare social workers.

In this chapter, I provide background information regarding social workers with ACE histories, define the problem and purpose of this study, list the research questions, and discuss the study's theoretical framework. Furthermore, I discuss the nature of the study, significant definitions, scope and delimitations, assumptions, significance for positive social change, and limitations.

Background

Social workers are often referred to as wounded healers due to their experience with personal adversities and the work they do to help others (Jung, 1966; Straussner et al., 2018). This includes ACEs. Incidences of ACEs are high among social workers (Branson et al., 2019; Howard et al., 2015; Steen et al., 2021a).For example, Steen et al. (2021a) found that 23.6% of licensed social workers in their study reported four or more ACEs incomparison to the 12.5% of the gernal sample of respondets in the origanl ACEs study completed by Kaiser Permanente and the CDC. Family histories of alcoholism and drug addiction were reported to be significantly higher among social work students compared to other majors (Black et al., 1993; Marsh, 1988; Rompf & Royse, 1994; Russell et al., 1993). For example, Rompf and Royse (1994), surveyed 415 undergraduate social work students at five universities and a comparison group of 203 nonsocial work

students from one university, and found that social work students reported more frequent occurrences of traumatic experiences such as family separation, deaths of parents or siblings, abuse and neglect, serious illness and/or mental illness, and parental divorce. Specifically, 37% of social work students endorsed emotional problems within their families in comparison to the 25% of the comparison group; and 17% of social work students endosed child abuse or neglect within their families compared to the 8% of nonsocial work students. Furthermore, Steen et al. (2021a) reported social workers in 13 states across the United States had an average of 2.1 ACEs, and 23.6% reported experiencing four or more ACEs.

ACEs have positive and negative impacts. ACEs have been associated with mental health challenges (see Merrick et al., 2017), physical health (see Monnat & Chandler, 2015), substance abuse (see Choi et al., 2017), and other biopsychosocial challenges. For instance, 40.2% of licensed social workers in 14 states reported mental health problems, and9.7% of this group experienced substance use problems (Straussner et al., 2018). Additionally, Siebert (2004) found 19% of social workers experienced clinical depression, and 46% reported past lifetime depression. Strozier and Evans (1998) conducted a national survey of 668 randomly selected social workers and found 17% experienced distress due to substance abuse, physical illness, and emotional problems.

Social workers also reported positive impacts due to ACEs in that they influenced their decisions to enter the social work field, seek understanding of their pasts, and create a desire to help others (Steen et al., 2021b). Positive outcomes can directly result from adversity (Shannon et al., 2013). Therefore, ACEs can produce positive outcomes for

social workers. Howard et al. (2015) found child welfare professionals including indirect service providers (clinical supervisiors, foster care supervisiors, program directors, etc.) and direct service providers (behavioral intervention specialist, case managers, social workers, etc.) with more ACEs had higher compassion satisfaction and lower rates of burnout, which allowed them to have a more positive PQL.

Two important concepts are event centrality and PTG. Event centrality is the impact of an adverse event in connection with a person's identity and or turning point in their life (Bernstein & Rubin, 2006). PTG refers to positive changes that result from experiencing adversity (Tedeschi & Calhoun, 2004). Bernard et al. (2014) found negative event centrality predicted posttraumatic stress disorder (PTSD) and other maladaptive functioning measures; positive and negative event centrality predicted PTG.

Extant research has been focused on ACEs' impact on social workers, including their PQL and PTG (see Steen et al., 2021b). It has also involved PTG and event centrality (see Brooks et al., 2017). Given that PTG and event centrality are important factors that are linked to ACEs, it is important to explore these variables further. It is also important to explore them as they relate to social workers who have high ACE scores. There is a gap in literature regarding the impact of ACEs on event centrality, PTG, and social workers' PQL. Therefore, I examined relationships between PQL, ACEs, resilience, and work environment among human service providers in Howard et al.' study (2015), to address the knowledge gap for social workers with ACE scores by focusing exclusively on social workers and examining ACEs, PQL, PTG, and event centrality.

Problem Statement

Exposure to ACEs has been linked to a range of long-term impairments involving epidemiological and neurobiological functions that can continue throughout adulthood. Additionally, as ACE scores increase, so do risk factors for leading causes of sickness, death, and poor quality of life conditions (Felitti et al., 1998). The problem addressed in this study was social workers' ACEs. Social workers chronicled more ACEs than the general population (Branson et al., 2019; Howard et al., 2015; Steen et al., 2021a). Steen et al. (2021a) found that 23.6% of social workers reported exposure to four or more ACEs. Among social workers who reported having had four or more ACEs, ACEs were associated with negative psychological, physical, and social changes and led to wellness and workplace issues, physical and mental health issues, substance use, and unhealthy coping skills (Lee et al., 2017; Steen et al., 2021b). Additionally, among 195 students in a graduate social work training program, higher ACE scores among social work students were associated with an increased likelihood of training-related retraumatization experiences and STS symptoms (Butler et al., 2018). Some of these negative outcomes are symptoms of posttraumatic distress.

According to Lee et al. (2017), 22.6% of child welfare professionals in Iowa reported exposure to at least one ACE. Among licensed social workers in 13 states, 70.3% reported exposure to at least one ACE (Steen et al., 2021b). Given the field of child welfare is dominated by professionals who hold social worker degrees as well as the high percentages of social workers who have encountered ACEs, it was essential for my study to focus on child welfare social workers. While researchers have investigated ACEs

among social workers and child welfare professionals, there have yet to be any studies that examine the impact of ACEs on PTG, event centrality, and PQL for child welfare social workers specifically. Researchers have not studied social workers in terms of PTG or event centrality, which have been linked to ACEs. PTG involves positive psychological changes and cognitive processes that are used to adapt after experiencing adversity (Tedeschi & Lawrence, 2004). Event centrality involves the extent to which an event becomes central to a person's identity or serves as the turning point for the individual (Bernstein & Rubin, 2006). My study filled this knowledge gap by examining the relationship between ACE and PTG, event centrality, and PQL for child welfare social workers.

Purpose of Study

The purpose of this quantitative survey study was to examine the impact of ACEs on PTG, event centrality, and PQL for child welfare social workers. Considering the impacts ACEs have on child welfare social workers, it is important to increase understanding of social workers' PTG and the extent to which ACEs are perceived to be integral to their identities and professional lives.

Research Questions and Hypotheses

Research questions for this study were:

RQ1: Does total ACEs experienced significantly predict child welfare social workers' PTG levels?

$H_0$1: Total ACEs experienced significantly predicts child welfare social workers' PTG levels.

H_a1: Total ACEs experienced does not significantly predict child welfare social workers' PTG levels.

RQ2: Does total ACEs experienced significantly predict child welfare social workers' event centrality levels?

$H_0 2$: Total ACEs experienced significantly predicts child welfare social workers' event centrality levels.

$H_a 2$: Total ACEs experienced does not not significantly predict child welfare social workers' event centrality levels.

RQ3: Does total ACEs experienced significantly predict child welfare social workers' PQL levels?

$H_0 3$: Total ACEs experienced significantly predicts child welfare social workers' PQL levels.

$H_a 3$: Total ACEs experienced does not significantly predict child welfare social workers' PQL levels.

Theoretical Framework

The theory that grounded this study is Richard Tedeschi and Lawrence Calhoun's PTG theory. Tedeschi and Calhoun (2004) stated PTG refers to positive psychological changes as a result of experiencing adversity. PTG involves cognitive processing of the traumatic event, specifically the process of ruminative thought (Tedeschi & Calhoun, 2004). Tedeschi and Calhoun claimed that how a person cognitively processes adversity is essential to the process of PTG. Thereby, it is not the traumatic event that encourages growth, but rather cognitive processes that are used to adapt following the trauma.

Furthermore, Bernstein and Rubin's concept of event centrality is associated with PTG. Even centrality is the extent to which an event is incorporated into an individual's identity, leading to it becoming central to the person's sense of self (Bernard et al., 2014). Bernstein and Rubin (2006, 2007) suggested that memories of traumatic events become a turning point for individuals and a component of their personal narratives. Additionally, PTG involves individuals relying on adaptive coping, social support, and dispositional optimism to overcome adversity.

The logical connection between this theoretical framework presented and the nature of my study was PTG theory's focus on adaptation after adversity. The variables in this study (ACEs, event centrality, PTG, and PQL) aligned with the focus of PTG theory. Event centrality is included in the process of PTG, as PTG involves the cognitive process and interpretations of events that contribute to adaptation. PQL is supported by adaptive coping, social support, and dispositional optimism. Adaptive coping refers to the cognitive and behavioral attempts to manage emotional distress. While, dispoisitional optimism refers to the propensity to expect good outomes in life. Social supports refer to the people that an individual turns to in times of need or crisis to gain perspective and resources. Additionally, PTG theory was used as a framework in ACE studies such as Jeong and Kim (2020), who found assault victims had higher levels of ACEs (t =-4.295; p <.05) and lower PTG (t=3.954; p<.001) compared to nonassault victims.

Nature of the Study

To address research questions for this quantitative study, I used online surveys and a correlational cross-sectional design in order to measure variables and assess

statistical relationships between them. The independent variable was participants' ACE scores. The dependent variables were event centrality, PTG, and PQL scores.For my research, I used G*Power software to conduct a power analysis to determine the sample size. To measure PQL, I downloaded the ProQOL 5 survey, which is used to measure positive and negative aspects of helping professionals and includes three subscales: compassion satisfaction, burnout, and STS. The ProQOL5 instrument may be freely copied as long as the author is credited, no changes are made other than those authorized, and it is not sold (ProQOL, n.d.). I downloaded the ACEs questionnaire. This is a 10-item questionnaire about maltreatment and family dysfunction as experienced during childhood. The questionnaire is not copyrighted, and there are no fees for use, but a copy of the my article had to be emailed to the Centers for Disease Control and Prevention (CDC). The Posttraumatic Growth Inventory–Short Form (PTGI-SF) was used with permission that was granted by the author, Dr. Arnie Cann. This is a 10-item measure of potentially positive changes arising from adverse events. The Centrality of Events Scale (CES) is used to assess how central a major life crisis is to an individual's identity and life story (Bernsten & Rubin, 2006). A standard demographic questionnaire was used to gather background information about participants. This questionnaire included items about gender, race and ethnicity, age, number of years of licensure, and number of years working in child welfare. Collectively, the four surveys and demographic questionnaire helped me answer my research questions by addressing all variables in the study.

All four survey instruments and a demographic questionnaire were programmed into SurveyMonkey, and a link was emailed to participants as a single survey. My study

sample was recruited through Facebook groups involving social workers who work in child welfare agencies and organizations, as well as social workers in general. The target population included child welfare social workers who had a minimum of 1 year of employment at a child welfare agency or organization and provided direct services. The sample of participants was recruited from the Washington metropolitan area, also known as the National Capital Region, or the DMV, which includes Washington, DC, Northern Virginia, and some parts of Maryland. Lastly, SPSS data analysis software was used to determine five statistically significant relationships between ACEs and PTG, event centrality, and PQL, which was suitable due to using the correlational design. Next, I used simple regression analysis to determine and explain the impact ACEs have on PTG, event centrality, and the three PQL subscales (STS, burnout, and compassion satisfaction). Regression analysis was conducted separately for each dependent variable. PQL subscales could not be analyzed together, given the separate scoring requirement for the ProQOL 5's three subscales, which is used to measure PQL (Stamm, 2012).

Definitions

Key terms are defined as follows:

Adverse Childhood Experience (ACE): Incidents of neglect, abuse, and household difficulties that occur during the first 18 years of life (Felitti et al., 1998)

Event Centrality: Personal meanings involving a negative event in relation to individual identity (Berntsen & Rubin, 2006).

Posttraumatic Growth (PTG): Experience of positive change that occurs as a result of struggles with challenging life crises (Tedeschi & Lawrence, 2004).

Professional Quality of Life (PQL): Includes compassion satisfaction, burnout, and STS (Xu et al., 2019).

Burnout: Emotional exhaustion, lack of motivation, and lack of a sense of achievement experienced by workers when performing their jobs (Xu et al., 2019).

Compassion Satisfaction: The pleasure helping professionals derive from performing their work (Xu et al., 2019).

Secondary Traumatic Stress (STS): Natural consequent behaviors and emotions resulting from knowing about a traumatizing event experienced by a significant other in addition to stress resulting from helping or wanting to help a traumatized or suffering person (Figley, 1995).

Assumptions

I assumed participants in this quantitative study were forthcoming about their ACE histories. I also assumed participants had some self-awareness related to event centrality. Since participants were recruited through Facebook and online surveys were conducted, I assumed participants self-screened and provided honest and correct information. These assumptions were necessary because accuracy of their disclosures contributed to generalizability of this study. Additionally, I assumed participants engaged in this study because they are or were affected by ACEs.

This study is grounded in PTG theory, which assumes that positive psychological change is the product of an individual's struggle to cope with traumatic events. Other studies, such as Sheridan and Carr (2020), Tranter et al. (2021), and Brooks et al. (2019), also used the assumptions of PTG theory to understand how ACEs impact survivors. The

assumptions of PTG theory are assumed to align with the underlying assumptions of the proposed study as this integration can provide insight into how social workers in my study have achieved growth after ACEs.

Scope and Delimitations

There has been a significant amount of research about ACEs and the impacts it has on child welfare professionals (see Bosk et al., 2020; Lee et al., 2017), PQL (see Butler et al., 2018; Mott & Martin, 2019), PTG (see Fraus et al., 2021; Tranter et al., 2021), and event centrality (see Tranter et al., 2021). While I found some empirical literature regarding child welfare professionals and ACEs, none of it explored or discussed direct service child welfare social workers specifically. Additionally, much of the research involving ACEs, PTG, PQL, and event centrality has been quantitative (see Branson et al., 2019; Butler et al., 2018; Steen et al., 2021a, 2021b; Tranter et al., 2021). There is a lack of studies on this topic using a quantitative approach.

Moreover, criteria to work as a child welfare professional varies by state and agency. This study included participants who were licensed social workers with a Master of Social Work degree and had employed for a minimum of 1 year at a child welfare organization in the DMV. All nonqualifying respondents were disqualified from this study, resulting in limited generalizability of findings. Each state (including DC) has government child welfare agencies and multiple nonprofit and private child welfare organizations, which could have produced differences in findings regarding the PQL due to structural and policy differences.

Limitations

I needed to address some limitations and challenges while conducting this study. Recently, and largely due to COVID-19, many people, including social workers, have experienced technostress or digital fatigue, resulting in overwhelming tiredness due to increased use of technology (Oksanen et al., 2021). My surveys were conducted electronically, which may have been barrier in my study. To alleviate this barrier, paper copies of the survey were available upon participant request via postal mail.

Additionally, ensuring a clear separation of my role as a social worker from my role as a researcher was a potential challenge. I ensured my findings were reported without bias by reporting findings favoriable and nonfavorable to my hypothesis. Another barrier to the study was difficulties recruiting participants to complete the survey, given that child welfare agency social workers have recently started transitioning back to in-person work. To overcome this barrier, I sent an interest email to organization administrators to share with their social workers. I also created a flyer (see Appendix A) and social media advertisement with caption (see Appendix B) to share with Facebook groups that included social workers. Lastly, there were limitations to the design used in this study. Correlational and cross-sectional designs cannot infer cause and effect. Therefore, statistically I could not explain why the variables predicted to each other.

Significance

This study is significant in that involves informing social workers. Many studies focus on improving social worker service delivery, but my study was specifically conducted to help social workers understand ACEs' impact on their PQL. It included new

perspectives on supporting social workers with ACEs. Specifically, my research will benefit social workers and social work institutions by helping them recognize and address ACEs. Organizations that employ social workers need to provide appropriate supervision to allow for optimal success. Steen et al. (2021a) stated clinicians with high ACE scores need more support from their managers to process their mental health challenges that manifest due to ACEs, without the stigma often associated with disclosure. While the workplace is not responsible for providing treatment to its social workers, institutions can use these findings to support in-service training and promote participation in continuing education training for social workers that involves educating them on ACEs and using behavioral health resources.

This study will lead to positive social change by improving social work administration policies and practices as well as social workers' PQL. The centrality of ACEs is associated with PTSD symptoms, depression, and dissociation, and it predicts relevant intrusion, like intrusive thoughts ,and avoidance symptoms (Bernard et al., 2015). Given the psychological impacts of the centrality of negative events and ACEs, data from my study may support social work administrators who implement or revise impairment policies including wellness components of the policy. In addition to administration, implementing trauma-specific and informed supervision to potentially reduce social worker burnout and STS will increase compassion satisfaction. Additionally, findings from my research may encourage social workers to participate in therapy before and after entering the field in order to address their ACEs and their

impacts on them. Data may also encourage social workers to seek trauma-informed supervision and implement self-care practices to improve their PQL.

Summary

Some social workers are wounded healers who have chosen this field due to their ACEs (Steen et al., 2021b; Straussner et al., 2018). A body of research involves social workers with histories of ACEs (see Lee et al., 2017; Steen et al., 2021a). However, research is limited regarding the impact of ACEs on PTG, event centrality, and PQL of social workers. This study involved examining the relationship between ACEs, PTG, event centrality, and PQL for child welfare social workers. I wanted to know how ACEs impact social workers' PTG, event centrality, and burnout, compassion satisfaction, and STS. I used online surveys with a correlational design in order to measure variables and assess statistical relationships between them. Chapter 2 includes a synopsis of current literature on social workers with ACE histories, an in-depth review of PTG and its applicability to the study, and information related to PTG, event centrality, and social worker PQL.

Chapter 2: Literature Review

Child welfare social workers have reported exposure to ACEs (Steen et al., 2021a). ACEs are associated with negative psychological, physical, and social changes and negatively impact social workers' wellness, workplace behavior, physical and mental health, in addition to leading to substance use and unhealthy coping skills for social workers (Lee et al., 2017; Steen et al., 2021b). Alternatively, ACEs have some positive impacts on social workers in terms of influencing their career choices, seeking understanding of their pasts, and desiring to help others (Steen et al., 2021b). There has been a significant body of research regarding social workers focusing on their ACE histories (see Bosk et al., 2020; Branson et al., 2019; Howard et al., 2015; Lee et al., 2017; Mott & Martin, 2019; Rose & Palattiyil, 2020; Steen et al., 2021a; Steen et al., 2021b). Specifically, over the past decade, researchers have paid close attention to the impacts ACEs have on social worker PQL and contributing factors that support social worker growth after experiencing ACEs (see Rose & Palattiyil, 2020). I aimed to expand this growing body of knowledge by examining impacts of ACEs on PTG, event centrality, and PQL for child welfare social workers.

In this chapter, I review exploratory research strategies that were used to locate current and seminal literature related to this study. Then I explain the PTG theory, which was used to ground this study. Lastly, I review current and seminal research regarding ACEs, PTG, event centrality, and PQL for child welfare social workers.

Literature Search Strategy

I searched literature using the Walden University Library and Google Scholar. I initiated the search in 2022 by accessing databases with filters set for peer-reviewed and full-text sources. Originally, I restricted my search to scholarly articles that include conceptual and empirical articles published between 2017 and 2022. I later extended my search to include seminal literature that made a substantial impact within the specific discipline and continued to be cited in current research. Databases used for this study were: ERIC, ProQuest Central, ScienceDirect, SAGE Journals, SocINDEX, CINAHL Plus, and APA PsycExtra. Keywords were: *social worker*, *adverse childhood experiences (ACEs)*, professional quality of life, *secondary traumatic stress*, *burnout*, *compassion satisfaction*, *event centrality*, and *posttraumatic growth*.

A total of 220 articles were reviewed. However, many had to be removed due to not being seminal literature or published between 2017 and 2022 . Of these, a total of 122 articles were used. A literature search was also completed on the theoretical framework. My search led to finding multiple studies on ACEs and PQL, but mostly conceptual articles on PTG and event centrality.

Theoretical Foundation

PTG Theory Description, Origin, and Assumptions

The theoretical framework for this study was Tedeschi and Calhoun's PTG theory. PTG stems from premodern literature focused on understanding positive change that is produced from suffering and distress. The writings of Christians, Hebrews, and Greeks and teachings of Islam, Buddhism, and Hinduism reference metamorphoses that

occur through suffering. In 20th century psychology, research addressed pathways of positive change through critical life crises. Janoff-Balman (1992) asserted people have fundamental assumptions about the world and their place in it. Tedeschi and Calhoun (2004) stated a major life crisis can cause substantial challenges to a person's comprehension of the world, and significant traumatic events can damage fundamental assumptions, resulting in emotional distress. However, positive psychological changes may occur due to struggles with traumatic events (Tedeschi & Calhoun, 2004). This is referred to as PTG. Growth is not a direct result of trauma, but involves struggling with the new reality following the trauma, which is essential in determining the extent of PTG (Tedeschi & Calhoun, 2004). Therefore, the trauma itself does not promote growth, but rather the cognitive process that is used to acclimate following trauma.

PTG is a real phenomenon that is linked to growth, including functioning, suggesting that it mirrors a person's relation to the world (Boehm-Tabib & Gelkopf, 2021). Tedeschi and Calhoun (2004) theorized growth occurs involving five domains: increased appreciation for life, more intimate meaningful relationships with others, increased sense of personal strength, recognition of new life possibilities or paths, and spiritual and existential development. Tedeschi and Calhoun (2004) believed PTG is possibly a "consequence of attempts at psychological survival, and it can coexist with residual distress from the trauma" (p. 4). In addition to PTG, struggling with traumatic events can also lead to alterations in individual life stories, as these events can be turning points and can result in event centrality (Tedeschi & Calhoun, 2004).

Previous PTG Theory Application

Brooks et al. (2019) found that the relationship between trauma characteristics and PTG was explained by the presence of avoidant coping strategies, intrusive thoughts, and individual social environments. Additionally, Boehm-Tabib and Gelkopf (2021) concluded PTG reflects actual functioning and not just a process that occurs in the mind. PTG is real and both an external (functioning and socializing) and internal (rumination and processing) process (Brooks et al., 2019; Tabib & Gelkopf, 2021). Social workers' external and internal processing after ACEs can support or diminish their PQL. Additionally, authenticating PTG is important, because it proves that individuals do not simply recover from trauma, but rather experience a process that produces growth.

Fraus et al. (2021) found an association between multiple childhood traumas reported and some forms of PTG such as an increase in self-reliance, changed priorities, and identified new life paths while also experiencing increased distress for adolescents enrolled in a psychology class through a public high school. Jeong and Kim (2020) found assault victims had higher levels of ACEs (t =-4.295; p <.05) and lower PTG (t=3.954; p<.001) compared to nonassault victims .

Seyburn et al. (2021) surveyed adolescents from the Midwestern U.S. who thought about an event during which they hurt someone and found that the more central the events were and the more they deliberately thought about the event, the more growth they experienced. Jeong and Kim (2020) found anxiety level predicted PTG level in a positive direction for trauma survivors. Anxiety has a potential positive function, in that anxiety or sense of insecurity can motivate survivors to restructure their cognitive schema

(Kim & Jeong, 2020). PTG is obtained through aognitive processes involving intentional or unintentional rumination that is produced due to anxiety. Given that PTG is obtained through various avenues, there is no way to account for other extraneous variables that may also facilitate or contribute to PTG. However, exploring event centrality in my study could contribute to pathways of obtaining PTG.

Further, Kim and Jeong (2020) also suggested that cognitive behavioral approaches should integrate the positive function of moderate anxiety in designing intervention programs for trauma survivors. Pliske et al. (2021) found using play therapy with 10 adults who were 25 years and over and experienced four or more ACEs created a context for healing and self-expression that promoted the development of PTG. PTG can be promoted with treatment for trauma survivors (Kim & Jeong, 2020l Pliske et al., 2021). According to Steen et al. (2021b), social workers across 13 states in the United States, understood that their ACEs required further assessment.

PTG Theory Rationale and Relationship with Current Study

I selected the PTG theory to ground my study, as PTG is linked to studies related to trauma survivors. Also, PTG can explain the positive changes made by social workers who experience ACEs. Furthermore, due to PTG's focus on the cognitive process that contributes to adaptation following a trauma, PTG can be used to examine event centrality (Tranter et al., 2021; Seyburn et al., 2020). PTG has also been used to explore negative and positive outcomes produced by ACEs (Nelson et al., 2019; Schaefer et al., 2018; Zeidner & Kampler, 2020). Therefore, my study may use PTG theory to explore

negative outcomes such as burnout and secondary traumatic stress (STS) and positive outcomes like compassion satisfaction found in the PQL of social workers.

Additionally, using PTG theory to answer my research questions built upon the existing PTG theory in that it explored additional variables that may challenge or support PTG theory. Often, PTG is explored in relation to event centrality and posttraumatic stress. My study used event centrality and introduced variables related to professionals (social workers) who have experienced trauma. The new variables in social worker PQL include burnout, STS, and compassion satisfaction.

Literature Review Related to Key Variables and/or Concepts

Since 1998, qualitative and quantitative studies have focused on ACEs and their impact (Felitti et al.,1988; Manyema et al., 2018; Merrick et al., 2017; Steen et al., 2021a). This focus has led to research on event centrality and PTG after ACEs, as they are correlated with ACEs (Brooks et al., 2019; Bryan, 2019; Merrick et al., 2017; Sheridan & Carr, 2020). Event centrality and PTG were often studied, quantitatively, using the CES (Bernsten & Rubin, 2006) to measure event centrality and the PTG Inventory (Cann et al., 2010) to measure PTG. Furthermore, during this recent decade, researchers have focused on ACEs among social workers (Howard et al., 2015; Steen, Senreich, & Straussner, 2021). In a quantitative study using the ACEs questionnaire, researchers found that 23.6% of social workers across 13 states in the US reported more exposure to childhood adversity than the 12.5% general populations (Steen et al., 2021a). Building on this finding, studies have begun to focus, quantitatively, on ACEs' impact on social workers' PQL using the ACEs questionnaire to determine ACEs exposure and the

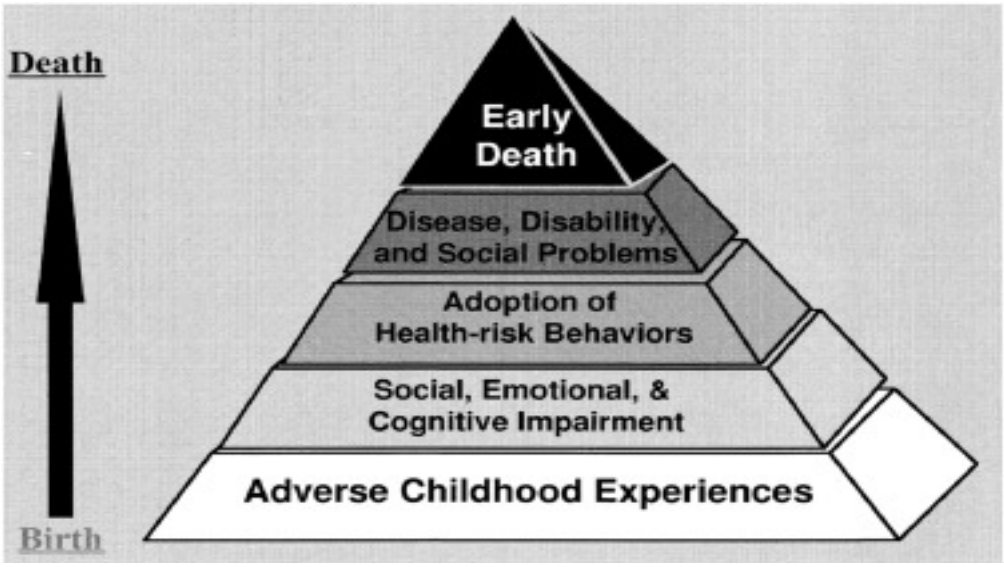
ProQOL (Howard et al., 2015; Mott & Martin, 2017) to measure PQL. This literature review synthesized studies on the key variables: ACEs, event centrality, PTG, and PQL.

ACEs

Felitti et al. (1998) described ACEs as incidents of neglect, abuse, and household dysfunction that took place during the first 18 years of life. ACEs consist of seven categories: psychological, physical, or sexual abuse; violence against mother; living with household members who were substance abusers, mentally ill or suicidal, or imprisoned. From 1995 to 1998, researchers at Kaiser Permanente, Emory University, and the Center for Disease Control and Prevention conducted a mailed-in survey of 13,494 Kaiser Permanente adult members to examine the association between childhood maltreatment and later-life health outcomes (Felitti et al., 1988). They found that participants who experienced four or greater ACEs, compared to those who experienced none, had 4 to 12-fold increased health risks for drug abuse, suicide attempt, alcoholism, and depression; a 2-4-fold increase in poor self-rated health, smoking, at least 50 or more sexual intercourse partners, and sexually transmitted disease; and 1.4 to 1.6-fold increase in physical inactivity and severe obesity. Moreover, the number of ACE exposures demonstrated a graded relationship to the presence of adult diseases, including cancer, skeletal fractures, ischemic heart disease, chronic lung disease, and liver disease (Felitti et al., 1988). The seven categories of ACEs were extremely interconnected and had a graded, cumulative influence; in that, the exposure to one ACE enhanced the potential of another, and with each additional maltreatment experience, the overall impact on health is more significant (Steen et al., 2021a; see Figure 1).

Figure 1

Potential Influences of ACEs Throughout the Lifespan



Note. Adapted from "The Adverse Childhood Experiences (ACE) Study," by V.J.Felitti, et al.,1998, *American Journal of Preventive Medicine, 14(*4), p.256 (https://doi.org/10.1016/S0749-3797(98)00017-8).

Since the development of the ACEs questionnaire by Felitti et al. (1988), there have been many other relationships with ACEs found. Relevant to my study, ACEs are exceedingly correlated with issues linked to mental health (Manyema et al., 2018; Merrick et al., 2017) and workplace experiences (Steen et al., 2021b). However, there have also been noteworthy disparities in ACE scores. Regarding age, Howard et al. (2015) surveyed 192 human service professionals across 48 organizations providing a host of services for children residing in foster care within a large metropolitan area in the southern United States, and found that older participants tended to have more ACEs. Steen et al. (2021a) recently conducted a quantitative inquiry that surveyed 5,540 licensed social workers across thirteen states and found that middle-aged cohorts had higher ACE scores than

older and younger groups. In the same study, White participants reported lower ACE scores than Black and Latino respondents. Higher ACE scores were also reported among gay and bisexual participants, compared to heterosexual respondents (Steen et al., 2021a).

ACEs and Helping Professionals

The literature is emerging to understand ACEs among helping professionals (mental health, human services, child welfare, etc.). Helping professionals endorsed experiencing at least one ACE in multiple studies (Evans & Evans, 2019; Kessler, 2018; Mott & Martin, 2019). Additionally, helping professionals such as child welfare providers (Howard et al., 2017; Lee et al., 2017) and mental health counselors (Brown et al., 2022) endorsed experiencing four or more ACEs. Keesler (2018) conducted an online survey of 386 direct service professionals, in a licensed setting, to explore the prevalence of ACE categories and ACE scores. He found that 75% of participants experienced at least one ACE, and 30% had an ACE score of four or greater. In comparison, Mott and Martin (2017) surveyed 371 licensed mental health providers and found that 17.5% endorsed zero ACEs, 36.7% endorsed one to two ACEs, and 45.8% endorsed three or more ACEs. Further, helping professionals' mean ACE score was higher than the general population (Brown et al., 2022; Howard et al., 2017; Lee et al., 2017).

The "wounded healer" archetype explains the vast number of ACEs found in these studies regarding helping professionals. The archetype suggests that adverse childhood experiences may unconsciously motivate someone to enter helping fields, and those experiences can better prepare helping professionals to aid others because people often heal through their brokenness (Evans et al., 2018; Evans & Evans, 2019). Bryce et

al. (2021) conducted a systematic literature review across databases, between February 1990 and February 2019, to explore the correlation between cumulative harm and childhood trauma on career choice in helping professionals. They found evidence indicating that helping professionals with a history of ACEs, who are motivated to pursue a career in helping, may have been influenced by a family of origin dysfunction and parentification, among other factors. Additionally, Bryce et al. (2022) interviewed 12 helping professionals working in social work, human services, counseling, and psychology. They found that all participants reported that the cumulative harm they experienced in childhood motivated their decision to choose a helping profession as a career. Given the findings from the studies on ACEs and helping professionals, one can assume that trauma can produce a desire to help others. Specifically, for helping professionals, trauma can help them to manifest the support they needed in their childhood when working with other trauma survivors.

While it is important to understand the prevalence of ACEs among helping professionals, researchers have found it essential to discuss and explore the impact of ACEs on helping professionals. Lee et al. (2017) emphasized that research regarding effects of ACE on helping professionals like child welfare professionas could produce strategies to minimize the possible impact of ACE on their current work-related stress. Howard et al. (2015) conducted a landmark study that surveyed 192 human service professionals, who represented 48 organizations and provided a range of services for children in foster care within a large metropolitan area in the southern United States of America. They examined the impact of ACEs on helping professionals' resilience, work

environment, and professional quality of life, including compassion satisfaction, burnout, and secondary traumatic stress. Howard et al. (2015) found that participants with more ACEs had higher compassion satisfaction and lower rates of burnout. Also, the number of ACEs was not significantly related to STS.

Contrary to Howard et al. (2015), other studies have found that higher ACE scores significantly predicted burnout among helping professionals (Brown et al., 2022; Lee et al., 2017; Mott & Martin, 2019). Lee et al. (2017) surveyed 104 child welfare service professionals in the Midwestern United States. They found that respondents reported high stress levels and frequent unhealthy coping strategies, their ACE scores were higher than those of the general population, and the relativity of ACE to participant career choice and unhealthy coping strategies also predicted work stress (Lee et al., 2017). Moreover, Howard et al. and other researchers acknowledge that burnout and work stress exist among helping professionals with a history of ACEs. However, more recent studies (Brown et al., 2022; Lee et al., 2017; Mott & Martin, 2019) have demonstrated that the frequency of ACEs can determine the degree of work stress and burnout, which may also be due to the nature of helping professionals' work with people who may have experienced similar traumas as the professional. Howard et al. (2015) and their fellow researchers failed to compare adversity types among helping professionals and the clients they service, which could be beneficial to understanding ACE frequency relationship with the degree of work stress. The research could compare how often helping professionals encounter consumers who have the same ACEs as the provider.

Furthermore, Brown et al. (2022) surveyed 140 mental health counselors throughout America and found that lower ACE scores also significantly predict compassion satisfaction. However, Mott and Martin (2019) conducted an online survey of 371 licensed mental health providers that examined the moderating effects of self-care on mental health providers' professional compassion outcomes, precisely the degree of burnout, secondary traumatic stress, and compassion satisfaction. They found that, regardless of ACE type and quantity, helping professionals are more likely to report greater levels of burnout and or STS, in addition to lower levels of compassion satisfaction. When comparing Howard et al. (2015), Brown et al. (2022), and Mott and Martin, there is no consensus regarding the relativity of ACEs to compassion satisfaction. Measuring compassion satisfaction can present challenges, because researchers cannot account for variables such as how the participant in the study feels or a negative interaction they may have had with a client before participating in the survey.

Furthermore, an online survey of 386 direct service professionals working in licensed settings revealed that helping professionals with higher levels of exposure to ACEs are more than twice as likely to report financial problems, job problems, and absenteeism, compared to workers who have no history of ACEs (Keesler, 2018). Additionally, well-being and health mediate the relationship between ACEs and job performance (Kessler, 2018). Emotional distress, relationship problems, somatic symptoms, substance abuse, and emotional distress were correlated with poorer job performance (Kessler, 2018). While Howard et al. (2015), Kessler (2018), Brown et al. (2022), and Mott and Martin (2019) have inconsistencies in their findings, it was

concluded that ACEs impact helping professionals in many ways, be it career choice, desire to help, PQL, and or job performance. This conclusion means that my study can contribute to the inconsistencies related to ACEs' relationship with variables related to helping professionals, but also expand knowledge on the correlation between ACEs and PQL.

ACEs and Social Workers

As mentioned, there is an understanding that ACEs impact helping professionals, specifically their professional quality of life (Brown et al., 2022; Lee et al., 2017; Mott & Martin, 2019). Studies regarding professionals with ACEs utilize an array of helping professionals, rarely concentrating entirely on social workers. The extent to which social workers have higher ACEs is inconsistent in the literature. However, studies have found that this population has a higher occurrence of ACE scores than the general population.

Also, it is important to focus on social workers because, among the helping professionals, they have a higher population of professionals who experience ACEs. In a study of 350 undergraduate students at a Midwestern, four-year university, the students with a history of ACEs had an increased likelihood of majoring in social work compared to other university majors (Branson et al., 2019). Branson et al. (2019) also compared ACE scores among social workers with other majors at a Midwestern, four-year university. They found that students who majored in social work reported 38% of one to two ACEs compared to approximately 31% of all other majors. In a study of 5,540 licensed social workers in 13 states, 70.3 % reported exposure to at least one ACE (Steen et al., 2021b). Compared to the studies on social workers, in a study of 104 child welfare

professionals in Iowa who responded to the ACE inventory, 22.6% reported exposure to at least one ACE (Lee et al., 2017). Additionally, in a study regarding ACEs and public service motivation, Evans and Evans (2019) asked 97 helping professionals to complete the ACE inventory and found that at least 19% experienced one ACE.

Since reviewing the literature, it was demonstrated that the history and frequency of ACEs influence the choice of majoring in social work rather than other majors, which may also explain why social workers have a higher population of reported exposure to ACEs than the population of helping professionals (Branson et al., 2019; Lee et al., 2017). While the literature provides an explainiton of social workers' ACEs there is still an obligation to focus on the impact their ACE frequency has on them. Ethically, social workers are required to understand their personal limitations before supporting others (National Association of Social Workers, 2017). However, there is limited research that consists of few samples that have studied ACEs among social work students and social workers.

Furthermore, given that ACEs have also been found to impact social workers' mental and physical health, futhers implies an obligation to to study the relationship between ACE and social workers. Steen et al. (2021a) conducted an online survey of 5,540 licensed social workers, in 13 states, to explore their behavioral and physical problems, ACEs, workplace issues, and demographics. They found that many social workers reported elevated exposure to ACEs, which puts them at significant risk for multiple wellness issues (Steen, 2021a). Steen et al. (2021a) found that 60.8% of the participants reported problems with their physical health, 51.8% reported issues with

their mental health, and 60.6 % reported sleep problems at some point in their social work career. The statistics by Steen et al. (2021a) demonstrated that social workers have impairments in functioning, which is concerning given that social workers have to be mentally and physically present with their clients.

Moreover, social workers have reported that their ACEs affect their work (Steen et al., 2021b). Steen et al. (2021b) surveyed more than 5,000 licensed social workers using the ACE inventory, and 1,828 responded to one or both qualitative questions. Regarding the ACEs' effect on respondents' work, social workers reported that their ACEs allowed them to identify with their clients, but they also experience countertransference. However, with clinical supervision, social workers worked through challenges with countertransference. Social workers in the study also reported that their shared trauma histories allowed their clients to develop greater trust in the therapeutic experience. Social workers in the study were also motivated by their ACEs, which drove them to advocate for change (Steen et al., 2021b). Lastly, participants reported that lessons learned from childhood adversity helped them relate to their colleagues. Steen et al. (2021b) demonstrated that ACEs have a negative effect on social workers, personally, but a positive effect, professionally, perpetuating the wounded healer archetype.

ACEs and Social Workers' ProQL

Howard et al. (2015) argued that we should seek to advance our understanding of ACEs in social workers', given the nature of their work involving traumatized clients. Research indicated that individuals who work in helping and health professionals and who were disproportionately exposed to childhood neglect, abuse, and or household

dysfunction experiences have the potential to be at an increased risk for problems with wellness and employment instability (Elliott & Guy, 1993; Follette et al., 1994). For example, Steen et al. (2021a) collected quantitative data from a convenience sample of 1,828 licensed social workers from 13 states in the U.S. and found that ACEs were negatively associated with wellness and workplace issues, including mental health, alcohol and other drugs, physical health, workplace stress, tobacco, and sleep. Further, the nature of social workers' duties and their experiences with ACEs affect their PQL (Howard et al., 2015; Xu et al., 2019). PQL includes burnout, compassion satisfaction, and secondary traumatic stress (STS) (Howard et al., 2015; Xu et al., 2019). When social workers are overworked or overstressed, they may experience burnout, which refers to a lack of motivation, emotional exhaustion, and a low sense of achievement (Maslach & Jackson, 1981; Pines & Maslach, 1978; Xu et al., 2019). Burnout is prevalent among social workers.

Additionally, when indirectly or directly exposed to traumatic events when servicing clients, there is a risk of STS for social workers, including intrusive thoughts, distressing emotions, physiological arousal symptoms, and functional impairment symptoms (Figley, 1999; Xu et al., 2019). Social workers who have experienced at least one traumatic event are at higher risk of developing STS, with individuals experiencing more kinds of personal traumas demonstrating more severe levels of STS (Xu et al., 2019). However, social workers may also experience compassion satisfaction, which is the sense of satisfaction that stems from providing help to others (Xu et al., 2019). Social workers regularly experience a high degree of compassion satisfaction (Xu et al., 2019).

A high degree of compassion satisfaction may be connected to the formation of joy in the social work profession (Xu et al., 2019). Interpersonal sources of joy in social work include making changes in society and the lives of others, connecting to clients and colleagues, and intrapersonal sources of joy which include finding meaning in service to others and making a life (Xu et al., 2019). Furthermore, Steen et al. (2021b) found that participants reported that their ACEs created interest in exploring their family dynamics, helping others, engaging in their therapy, understanding clients' experiences, advocating for change, seeking supervision, and influenced their career choice. This interest may be a result of the psychological impact of ACEs.

Understanding ACEs and Protective Factors for Social Workers with ACEs

Understanding potential factors that contribute to social workers' posttraumatic growth and compassion satisfaction and preventing or decreasing STS and burnout is necessary for the well-being of social workers and the protection of clients they serve. Additionally, the profession of social work is dedicated to ethical practice of not only protecting their clients but also social workers themselves (Branson et al., 2019). Understanding child welfare professionals, including social workers' ACEs, would also benefit supervisors and the workers, considering that child welfare professionals with higher ACE scores are more susceptible to work stress (Lee et al., 2017). Lee et al. (2017) conducted a mixed-method study of 104 child welfare service professionals in a Midwest state in America. They found that participants reported high stress levels and frequent unhealthy coping strategies. Quantitative analysis revealed that ACE scores

were higher than the general population, and unhealthy coping strategies predicted their work stress.

Further, Howard et al. (2015) found that higher levels of leader control among social workers with ACEs reported less compassion satisfaction and more burnout. Controlling leadership led to increased worker burnout (Howard et al., 2015). Therefore, the types of relationships provided by supervisors can play an essential role in perceived stress, job satisfaction, burnout, and turnover. Howard et al. (2015) suggested that supervisors who are authoritative rather than authoritarian may be the most effective at giving the types of support that will yield the best outcomes for social workers. Further, one of the most frequently expressed themes by child welfare professionals in Lee et al.'s (2017) mixed-method study was the perception that supervisors lacked awareness of the need for support regarding the importance of self-care among child welfare professionals. Lee et al. (2019) and Howard et al. (2015) found that leadership plays a role in social workers' professional quality of life, including their stress; however, only Lee et al. (2019) observed coping strategies. Coping strategies, such as self-care, are essential when managing stress professionally and personally.

Self-care refers to activities in which individuals foster overall health and limit or prevent illness (Cuartero & Campos-Vidal, 2018). The National Association of Social Workers (NASW, 2009) defines self-care as "a core essential component to social worker practice that reflects a choice and commitment to become actively involved in maintaining one's effectiveness as social workers in preventing and coping with the natural, yet unwanted, consequences of helping" (p. 246). Mott and Martin's (2017)

quantitative study revealed that providers engaged in higher self-care had lower levels of burnout and STS and higher levels of compassion satisfaction. Additionally, Shepherd and Newell (2020) surveyed 45 social workers from Alabama and found that engaging in self-care behaviors correlated with less burnout, more compassion satisfaction, and better overall mental and physical health. Mott and Martin (2017) surveyed 371 licensed mental health providers, while Shepherd and Newell (2020) surveyed 45 social workers. The conclusion was that the same self-care could contribute to a healthier professional quality of life, which is important, given the demanding and stressful nature of social work.

While the workplace is not responsible for providing treatment to social workers, it is important to train supervisors to increase the awareness of stress among social workers and create supportive initiatives encouraging self-care within child welfare practices (Lee et al., 2017). Self-care has been noted as a protective factor against stress (Butler et al., 2017) and burnout (Cuartero & Campos-Vidal, 2018; Lee et al., 2017; Shepherd & Newell, 2020). Also, understanding potential factors that contribute to social workers' posttraumatic growth and compassion satisfaction and preventing or decreasing STS and burnout is necessary for the well-being of social workers and the protection of clients they serve.

Impact of ACEs and ProQOL on Service Delivery of Social Workers

The NASW code of ethics (section 4.05) states that social workers should not allow their personal problems, legal problems, mental health difficulties, psychosocial distress, or substance abuse to interfere with their professional judgment and performance or jeopardize the best interest of the consumers they serve. Contrary to this requirement

by NASW, social worker service delivery is impacted by their personal and professional issues. Lee et al.'s (2017) mixed-method study demonstrated that the relativity of ACEs to unhealthy coping strategies predicted social work stress. Workplace stress refers to measures of conditions, such as having control over your own level of work, having a safe work environment, relating with collogues, and balancing work-life obligations (Steen et al., 2021b). Lee et al. (2017) highlighted that work stress could lead to diminished quality of services delivered to families and children.

Furthermore, Bae et al. (2020) surveyed 120 practicing social workers who were alumni of a large southern university. They found that adverse responses to job-related stress and burnout can also lead to professionals experiencing feelings of professional failure that may be expressed through negative attitudes toward the people they serve (Bae et al., 2020). Xu et al. (2019) conducted a survey among social workers in a mid-Atlantic state in the U.S. and found that social workers who have higher levels of burnout and STS and lower levels of compassion satisfaction, are at increased risk for providing less than optimal care to individuals they serve. Further, Steen et al. (2021b) suggested that ACEs may compromise social workers' abilities to manage workplace duties and relationships. Of the studies mentioned, all the researchers except for Lee et al. (2017) collected quantitative data, which does not provide a first-hand, in-depth account for mitigating variables to work stress, such as coping strategies. However, Howard et al. (2015) and Steen et al. (2021b) collected qualitative data that observed the positive implication for service delivery by social workers with ACEs. Accounting for the positive implications of service delivery and the mitigating variables of work stress are

essential when evaluating the relationship between social worker professional quality of life and service delivery, because it provides an in-depth explanation of barriers to services and strengths utilized by social workers.

Howard et al. (2015) stated that social workers who have experienced ACEs might have a higher level of empathy and concern for the families and children they serve because of their ability to identify with these populations. Steen et al.'s (2021b) qualitative study revealed similar findings. They found that social workers who experienced ACEs reported that their personal ACEs allowed them to relate to clients' experiences. Respondents in the study also reported that their experiences with ACEs helped them to become better advocates for children, including being more radical in their approaches to social justice issues. In reviewing the literature, it is essential to note that there are multiple contributing and mitigating variables to work stress that can promote or diminish social workers' professional quality of life and eventually impact the care of clients; however, researchers cannot account for all variables.

Event Centrality

Individuals have basic beliefs about themselves and the outside world, referred to as the assumptive world (Janoff-Bulman, 1992, 2006; Murray Parkes, 1971). Janoff-Bulman (1992) proposed that three fundamental assumptions make up a person's assumptive world: the world is benevolent, the world is meaningful, and the self is worthy. Janoff-Bulman (1992) refers to the world in an abstract sense of referencing people and events. Benevolence of the world refers to the notion that, overall, individuals

believe that the world is a good place. People consider the benevolence of their world, not the world, in general.

Furthermore, individuals believe that events in their world are meaningful and comprehensive. An individual's perception of meaning is not exclusive to beliefs regarding why events happen in their world but why these experiences happen to certain individuals. We attempt to comprehend the dispensation of positive and negative outcomes (Janoff-Bulman, 1992). A meaningful world consists of recognizing self-outcome contingency and the association between an individual and what they experience. Additionally, the self-worth assumption includes a universal evaluation of the self; generally, a person perceives themselves as good, moral, and capable (Janoff-Bulman, 1992). These three assumptions co-exist in the assumptive world.

These assumptions can be perpetuated or disrupted by life events and the memories tied to these experiences. Autobiographical memories influence a person's actions and beliefs, affect their personal relationships, and contribute to shaping their identity (Steinberg et al., 2021). Event centrality describes the extent to which these memories become central to an individual's autobiographical memories and disproportionately affect their worldview and self-concept (Steinberg et al., 2021). The memories of trauma can be a benchmark for some people. Therefore, Gehrt et al. (2018) stated that the centrality of events refers to the degree to which a person believes an event has become central to their identity. The prominence of the trauma can evolve into the central reference point for meaning-making, which can influence historical and daily attributions of meaning, potentially manifesting rumination about the negative meaning

of the event to cope with being characterized by the traumatic experiences (Grau et al., 2021). For this reason, the centrality of events is often considered a turning point in a person's life.

Traumatic events central to one's life story have been found to have adverse correlates (Gehrt et al., 2018). For example, research has suggested an apparent paradox: ACEs can be associated with negative outcomes, such as posttraumatic stress (Kalmakis et al., 2020), but can also generate positive changes (Brooks et al., 2019; Sheridan & Carr, 2020). Tranter et al. (2021) conducted an online survey of 167 participants (general population sample) and found that event centrality is a mediating variable that needs to be present for such outcomes to be present (Tranter et al., 2021). Steinberg et al. (2021) conducted a network analysis of archival data from five online studies recorded from 2018 to 2020 that included 1,268 undergraduate students from a large university in the southwestern U.S. They found that event centrality may be a catalyst for positive or negative impacts, depending on how an individual interprets the centrality of their traumatic experience. Kalmakis et al. (2020), Tranter et al. (2021), and Steinberg et al. (2021) all demonstrated that event centrality is subjective, as it is based on the individual's processing of their experience. However, Steinberg et al. (2021) and Blix et al. (2020) have demonstrated a consistency in the outcomes for trauma survivors who rated their experiences as more central to their identity. For example, survivors who rate their experiences as more central to their identity on the CES have demonstrated more severe symptoms of posttraumatic stress disorder (PTSD), such as adult survivors of childhood sexual abuse (Steinberg et al., 2021). Blix et al. (2020) interviewed and

surveyed 195 individuals (94 survivors and 91 bereaved) who were linked to the fire on the passenger ferry, Scandinavian Star, 26 years earlier and found that the centrality of the event was associated with higher levels of posttraumatic stress. Contrary to the association with adverse outcomes, traumatic events, as central to an individual's identity, can cultivate perceptions of PTG. Kramer et al. (2020) conducted an online survey of 269 trauma-exposed undergraduate students at a southeastern university and found that traumatic events, assessed as central, can lead to distress and activate deliberate rumination, which has a positive effect on PTG.

PTG

After a disruption to an individual's assumptive world, due to trauma, they experience a process of rebuilding their core beliefs. PTG signifies the evolvement of positive changes in an individual's self-perception, interpersonal relationships, and worldview after trauma (Steinberg et al., 2021; Tedeschi & Calhoun, 1996). PTG is an experience for people whose development has exceeded what was present prior to the trauma. However, it is important to note that PTG is not likely to happen automatically because of trauma. Instead, the psychological struggle and distress sparked by the disruption of an individual's core beliefs facilitate the recognition of positive changes (Cann et al., 2010; Kramer et al., 2020). PTG, a consequence of an attempt to psychologically survive, is often confused with resilience; however, they are distinct concepts. Resilience is often defined as the ability to continue with life following adversity (Tedeschi & Calhoun, 2004). In contrast, PTG encompasses attributes of change in functioning (Tedeschi & Calhoun, 2004). However, Tranter et al. (2021)

conducted an online survey of 167 participants (general population sample) that explored whether emotional resilience and event centrality could determine the degree of negative or positive changes reported after ACEs for the general population. They found that resilience and event centrality were significant mediators of PTG.

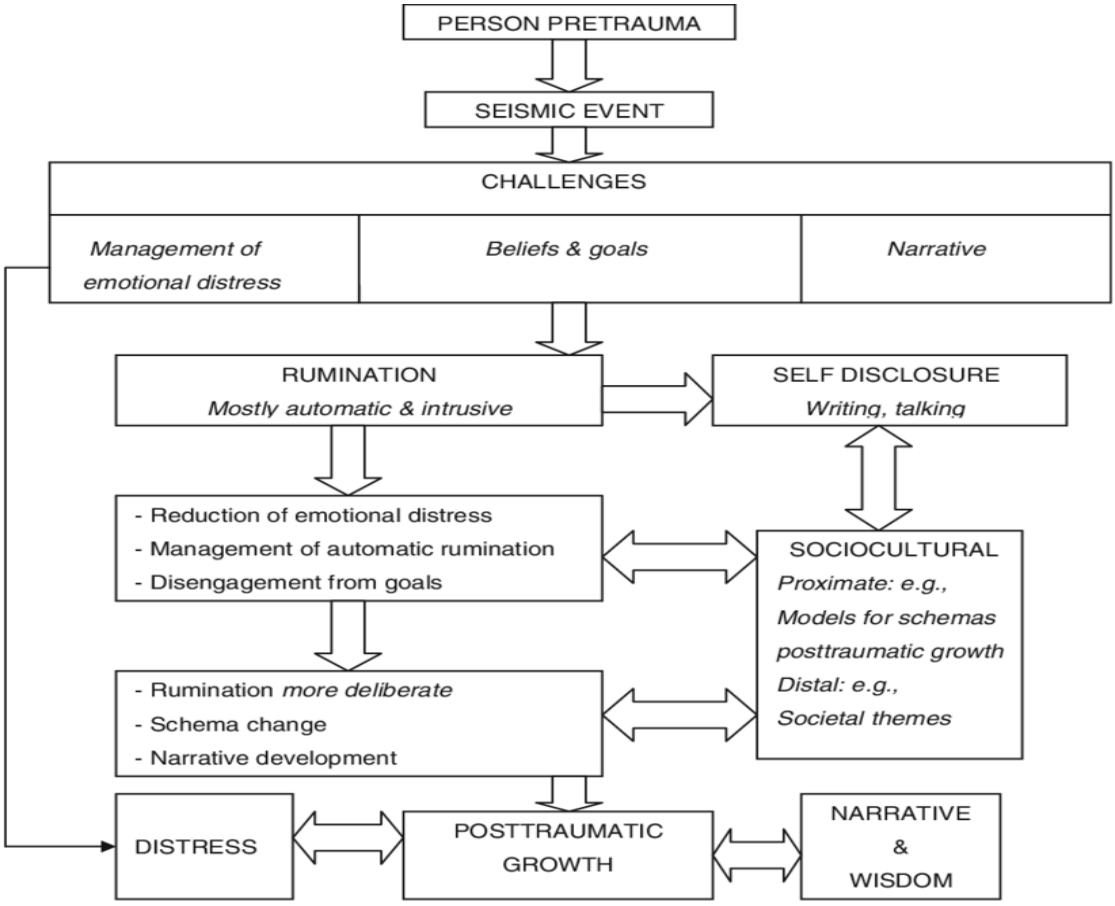
Tedeschi and Calhoun (1996) conducted a literature review on responses to highly stressful events and interviewed people who had experienced loss, physical disabilities, and other crises. They found that among many people, who have experienced adversity, was an increased appreciation for life, in general, an identification of new possibilities for life or life paths, increased personal strength, more intimate and meaningful relationships with others, and growth in spiritual and existential matters. Tedeschi and Calhoun (2004) identified these growth areas as the five growth domains: appreciation of life, new opportunities, increased personal strength, improved relationships, and increased spirituality or existential development. These findings were proven in a recent study. Lee and Kim (2020) surveyed 254 caregivers, including nurses, nursing assistants, social workers, and care workers in Korea, to identify the relationship between caregivers' psychological suffering and PTG after a patient's death. They found higher psychological suffering, regarding expanding self-consciousness, change of values, and spiritual sublimation had a positive correlation with PTG. Specific to my study, the researchers found that for social workers, higher self-consciousness was associated with greater PTG (Lee & Kim, 2020). While using different population sample sizes and adversity types, Tranter et al. (2021), Tedeschi and Calhoun (2004), and Lee and Kim (2020) demonstrated that PTG is a product of a psychological process. The researchers'

emphasis on the psychological process contributes to the notion that growth after trauma does not happen on its own.

PTG occurs through cognitive processing of traumatic events, which then creates a sense of meaning and value for the survivor. However, Tedeschi and Calhoun (2004) emphasized that the event must be challenging enough to the assumptive world to initiate the cognitive processes necessary for growth. Tedeschi and Calhoun (1998, 2004, 2006) provided a comprehensive theoretical model of the PTG process that details the emotional, cognitive, and social process that enable PTG. Figure 2 demonstrates the model, which includes attributes an individual's pre-trauma, intrusive and deliberate rumination process linked to rebuilding core beliefs, sociocultural elements that may be significant parts of the PTG process, managing emotional distress, and self-disclosure.

Figure 2

PTG Process



Note. Adapted from "Posttraumatic Growth: Conceptual Foundations and Empirical Evidence", by R.G. Tedeschi & L.G. Calhoun, 2004, *Psychological Inquiry, 15*(1), p. 7(https://doi.org/10.1207/s15327965pli1501_01). reprinted by permission of Informa UK Limited, trading as Taylor & Taylor & Francis Group, http://www.tandfonline.com

The process highlights that personal attributes such as optimism, extraversion, and openness to experience can increase the likelihood of growth (Tedeschi & Calhoun, 2004). At the start of the process, the trauma survivor who experiences the event usually needs to use coping techniques to manage immense emotions, in addition to significant cognitive processing of the adversity. The survivor's social system may be an essential

element to the overall growth process, as the system provides new schemas pertaining to growth, and the empathetic acceptance of disclosures about the trauma experience and growth themes (Tedeschi & Calhoun, 2004). PTG appears relative to the changes in the survivor's life narrative and general wisdom regarding life. Components of this process were recently examined by Mohr and Rosen (2017), which focused on the relationship between PTG and childhood abuse and neglect, using a sample of 501 college students in western United States. They found that protective factors of acceptance, positive reframing, and emotional support all significantly predicted PTG; however, only prosocial adults and the overall number of social and emotional resources experienced moderated the relationship between maltreatment and PTG.

Furthermore, an essential component of the PTG process includes repeated thinking about the event, which is called rumination. Rumination may lead to accommodations of the assumptive world to the change reality, or the event integrates into the current cognitive structures, leading to posttraumatic growth (Janoff-Bulman, 1992; Sheridan & Carr, 2020). Studies of rumination reveal consistent findings regarding the mediating role deliberate rumination has on PTG. Kim and Bae (2019) conducted a survey of 450 trauma-exposed adults (general population sample) in South Korea and found that deliberate rumination mediated the relationship between intrusive rumination and PTG. Additionally, Freedle and Oliveira (2021) surveyed 227 women who experienced miscarriages, to explore the relationship among self-disclosure, rumination, and positive social reactions. They found that disclosure and positive social reactions predicted PTG, and the relationship between positive social reactions and PTG was

mediated by deliberate rumination. Although Kim and Bae (2019) used a different population and had a larger sample than Freedle and Oliveira (2021), both sets of researchers concluded that PTG was mediated by deliberate rumination. While ruminating mediated PTG, the researchers should further discuss that rumination is also a symptom of posttraumatic stress, because failure to acknowledge the difference in rumination can cause readers to ignore signs of a mental illness.

Using what Tedeschi and Calhoun found regarding the process of PTG and the PTG domains, they developed the PTG Inventory (PTGI). The PTGI measures the extent to which trauma survivors perceive personal benefits, including changes in philosophy of life, relationships with others, and self-perception, accruing from their attempts to cope with the aftermath of the trauma (Tedeschi & Calhoun, 1996). More details about the PTGI are proven in the instrumentation section of this document.

Summary and Conclusions

This literature review included ways researchers have approached the problem and prevalence of ACEs among helping professionals, including social workers, as well as findings related to the issue. Literature has shown a need to further explore ACEs as it relates to this population, considering high ACE scores among this population of professionals (see Evans & Evans; Keesler, 2018; Steen et al., 2021b), and the impact it has on their PQL (see Howard et al., 2015; Kessler, 2018) and health (see Steen et al., 2021a). Social workers with a history of ACEs compassion satisfaction (Xu et al., 2019). However, there were inconsistencies in findings related to the impact ACEs have on STS and burnout for social workers. While expanding knowledge on this phenomenon is

essential, I also discussed factors that contribute to this population's PTG and compassion satisfaction and prevent or decrease STS and burnout. This is imperative given literature suggests PQL impact service delivery. Also, this discussion on the impacts of ACE on social workers will impact social change and lead to expansion of practices and policies to minimize the potential effects of ACE on social worker sense of well-being and improve service delivery to the consumers they serve.

While knowledge has been gained about ACEs, event centrality, PTG, and ACEs' impact on social workers' PQL, there is a gap in knowledge that requires focus on these variables together. Studies have not examined the impact of ACEs on PTG, event centrality, and PQL for child welfare social workers. My study filled in this knowledge gap by examining the impact of ACEs on PTG, event centrality, and PQL for child welfare social workers.

Chapter 3 includes information about how, the gap in research was explored to increase awareness of the correlation between ACEs, PTG, event centrality, and PQL for child welfare social workers. The chapter includes information about this study's research design, methodology, data analysis plan, threats to validity, and ethical procedures.

Chapter 3: Research Method

The aim of this study was to examine the impact of ACEs on PTG, event centrality, and PQL (burnout, compassion satisfaction, secondary traumatic stress). Literature includes research regarding negative health, psychological, and behavioral outcomes following ACEs (see Felitti et al., 1998; Manyema et al., 2018; Merrick et al., 2017; Steen et al., 2021a). Memories of trauma may become central and turning points for survivors, which may lead to negative outcomes or spark a cognitive process that promotes growth (Bernsten & Rubin, 2006, 2007; Steinberg et al., 2021). Further, social workers are at high risk of experiencing problems with wellness after ACEs. Social workers' experiences with ACEs impacts their PQL (Howard et al., 2015; Xu et al., 2019). Considering positive and negative outcomes, and the risk factors associated with ACEs for social workers, an increase in awareness of the impact of ACEs on social workers' PTG, event centrality, and PQL is needed.

This chapter includes an outline of the quantitative method and procedures used to conduct this study. I discuss the research design and rationale for the study. I include the target population and describe sampling procedures used to recruit participants. Additionally, I describe and provide information about reliability and validity of instruments used for data collection. I then provide a data analysis plan. Lastly, I discuss threats to validity.

Research Design and Rationale

My study involved using a a quantitative correlational cross-sectional survey design.

Quantitative Research

The quantitative design is an objective, formal, and systematic design to test relationships, describe, and examine cause and effect associations between variables (Bloomfield & Fisher, 2019). Quantitative research also involves testing hypotheses. The quantitative design was appropriate to use for my research, because I attempted to determine relationships and associations between the independent variable and dependent variables.

Independent Variable

The independent variable, ACEs, is measured in terms of incidents of neglect, abuse, and household dysfunction that occurred during the first 18 years of life. Neglect includes situations in which emotional or physical needs are not adequately met (Bernstein et al., 1994). Conditions involving household dysfunction include mental illness in the household, parental separation or divorce, family incarceration, substance misuse in the household, and exposure to domestic violence (Dong et al., 2004).

Dependent Variables

I examined the impact ACEs have on social workers' PTG, event centrality, and PQL. PTG refers to the development of positive changes in terms of self-conception, beliefs, and worldviews after a trauma (Steinberg et al., 2021; Tedeschi & Calhoun, 1996). Event centrality refers to the extent to which a memory becomes central and disproportionately effects an indnividual's worldviews and self-conception (Gehrt et al., 2018; Steinberg et al., 2021). Event centrality is a catalyst for PTG and is postivly associated to PTG,(Brooks et al., 2017; Steinberg et al., 2021). PQL refers to measures of

compassion satisfaction, burnout, and STS. STS is defined as "the natural consequent behaviors and emotions resulting from knowing about a traumatizing event experienced by a significant other—the stress resulting from helping or wanting to help a traumatized or suffering person" (Figley, 1995, p. 7). Compassion satisfaction is the pleasure helping professionals derive from performing their work (Steen et al., 2021a). Burnout is the emotional exhaustion, lack of motivation, and low sense of achievement experienced by social workers due to performing their jobs (Xu et al., 2019).

Correlational Design

A correlational design is used to determine whether a relationship exists between two or more variables and the nature of the relationship (Bloomfield & Fisher, 2019). The design is used to address trends, characteristics, and relationships as they exist in the real world. This design is appropriate for my study because it can be used to determine if a rise or fall in one variable correlates with a change in another variable.

Cross-Sectional Design

A cross-sectional study includes data from various individuals at a single point in time (Field, 2018). The design is appropriate for my study because I collected data at only one point in time and examined it across variables. I collected data using SurveyMonkey. This design allows for data to be collected faster with a sufficient sample size (Field, 2018).

Methodology

Population

The target population from which the sample for this study was drawn is licensed child welfare social workers with Bachelor of Social Work (BSW) or Master in Social Work (MSW) degrees in the DMV. According to the U. S. Bureau of Labor Statistics (2021), nationally, there are 340,050 child, family, and school social workers; of them, 2,220 are employed in Washington, DC, 5,620 are employed in Maryland, and 9,270 are employed in Virginia.

Sampling Method

I used purposeful sampling. Purposeful sampling is used when searching for knowledgeable participants with the necessary experience to engage in the study (Andrade, 2021). This sampling method lacks randomization, which decreases generalizability (Andrade, 2021); however, probability sampling would not be cost- or time-effective. For this study, flyers (see Appendix A) and social media posts (see Appendix B), were used to recruit participants through tDMV child welfare agencies and social media platforms with groups focused on social workers, which was used to relieve costs, increase access, and increase chances of obtaining the sample size needed for this study. I contacted Maryland, Virginia, and DC licensing boards to inquire about obtaining email addresses for licensed social workers. The District of Columbia provided me a list of social worker emails, and those listed were contacted and provided the flyer and survey links.

Inclusion Criteria

All participants were licensed social workers in the DMV area. Licensed social workers are required to have a social work degree at the bachelor or master's level, passed a competency exam given by the Association of Social Work Board (ASWB), and have experience in the field of social work. Participants also had to have at least one year of employment in child welfare.

Sample Size

The sample size was calculated for the research questions, including power, effect size, and alpha, to determine the necessary sample size range (Field, 2018). An alpha level of .05 was used for a stronger statistical effect. I used an effect size of .15 for a higher statistical effect (Field, 2018). The statistical power desired for this study was .80 The sample size was calculated using G* Power Software (Field, 2018; Jam & Shieh, 2019).

Minimum sample size was calculated for simple linear regression (with an effect size of .15 alpha of .05, power .80, and one predictor variable); a minimum sample size of 55 was calculated. When conducting a study, nonresponse to the study protocol is unavoidable. Therefore, it was essential to consider the nonresponse rate when calculating the sample size (Kang, 2021). In a study on response rates for online surveys, the researchers found a 44% response rate among 1,071 studies in a meta-analysis (Wu et al., 2022). To achieve a final sample size of 55 study participants, I needed to account for the nonresponse rate (or, rather, for a 44% response rate). Therefore, a minimum of 125 (55 is 44% of 125) surveys were sent out.

Recruitment

Once Walden University Institutional Review Board's (IRB) approved the study, I announced the study on the following social media platforms: Facebook, LinkedIn, and Instagram. I targeted Facebook groups focused on social workers. Most social worker Facebook groups were private and required justification for joining the group, in addition to agreeing to the terms of the group. Most terms included not using the page for personal monetary gains and utilizing the page appropriately. I requested permission from the Facebook groups' administrators to post the announcement. Also, announcements regarding the study were shared with DMV child welfare agencies. The language included that administrators should not require participation in the study. It also included eligibility criteria and my contact information. The announcement was in a flyer (Appendix A) format with the link and QR code to the consent forms and survey. Lastly, I contacted state and DC licensing boards to inquire about obtaining email addresses for licensed social workers. I emailed the DC social workers the flyer and the link to the survey. Contact information for social workers licensed in Maryland and Virginia were available for a fee that was not cost effective for this study.

Data Collection

Data were collected via electronic surveys. Electronic surveys are time-saving, cost-effective, and accessible for several studies (Frankfort-Nachmias et al., 2015). Participants completed five surveys, totaling 62 items, including a demographic form (Appendix C), ACE questionnaire (Appendix D), ProQOL5 (Appendix E), PTG Inventory- Short Form (Appendix F), and Centrality of Event Scale- Short Form

(Appendix G). Details regarding the surveys are included in the instrumentation section below. The announcement included a link to the surveys stored in SurveyMonkey. Respondents who selected the link were presented with the inclusion criteria questionnaire. If the respondent did not meet the criteria, they were directed to a page which thanked them for their willingness to participate but informed them that they did not qualify for the study. Conversely, those who qualified were directed to the informed consent. The consent included information about the study's purpose, risk, time requirements, ambiguity, and how the data would be used. Once the surveys were completed, the participants were directed to a page which thanked them for their participation. Given the discussion of ACEs may be emotionally triggering, resources were provided (i.e., Suicide Prevention Lifeline, National Alliance on Mental Illness, etc.) regarding the consent and thank you page. Participants were not debriefed or required to follow up on survey competition.

Instrumentation and Operationalization of Constructs

Demographic Form

I created the demographic form (see Appendix C). It included questions to solicit data regarding gender, race, ethnicity, age, years licensed, degree level, and years of experience as a child welfare social worker. The demographic form was developed based on Howard et al.'s (2015) study, as it is the foundational study used to support my study.

ACE Questionnaire

The ACE questionnaire was developed by Felitti et al. (1998) to assess childhood maltreatment and family dysfunction experienced before the age of 18. The questionnaire

consists of 10 discrete binary items (yes/no) that ask about abuse (sexual, physical, and verbal), domestic violence, substance misuse in the home, family mental illness or suicide, and the absence of a parent. The questionnaire measures the type(s) of childhood adversity and the frequency (cumulatively) that an individual endorses. Individuals indicate whether they experienced each item by responding yes or no. Yes responses are scored with "1" and no responses are scored with "0". Upon completion of the questionnaire, a summed total is obtained and can produce a score between 0 and 10 (Felitti et al., 1998). A low score (0-3) indicates that individuals are not at high risk for negative health outcomes. In contrast, a score of four or more is considered high and indicates a high risk of having negative health issues, including a higher potential for work-related issues (Felitti et al., 1998).

Various researchers have examined the ACE questionnaire's psychometric properties to establish the tool's reliability and validity (Dube et al., 2013; Murphy et al., 2014; Steele et al., 2016). The ACE questionnaire provides retrospective reports of an individual's ACE. Researchers' test-retest reliability indicates that measures used to assess ACE will lead to stable responses over time (Murphy et al., 2014). Once an adverse experience occurs, it cannot be changed or removed. Previous studies have found retrospective reports that the ACE questionnaire had good to excellent test-retest reliability (Dube et al., 2013). Therefore, in the absence of validation and substantiation of maltreatment, test-retest reliability is the best psychometric property that can be utilized. Additionally, measures used to assess ACEs have been highly interrelated and correlated (Steele et al., 2016). Psychometrically, .70 or higher is considered a good

Cronbach's alpha (Hemsworth et al., 2017). In Murphy et al.'s (2014) study, Cronbach's alpha is .88, for the 10 items indicate a high internal consistency. For this current study the Cronbach's alpha was .698, for the 10 item ACE questionnaire.

For this study, I used the ACE questionnaire to measure the frequency of ACEs experienced by social workers. According to the CDC (2021), the questionnaire is not copyrighted, and there are no fees for use, but the final study must be emailed to the CDC.

ProQOL

Stamm's (2012) ProQOL 5 is a 30-item self-report measure of positive and negative effects experienced by helping professionals who engage with individuals exposed to traumatic experiences (Howard et al., 2015; Mott & Martin, 2019). The ProQOL 5 is a revised version of Figley's (1995) Compassion Fatigue Self-Test. The measures include 30 statements on a 5-point Likert scale (1 = never to 5 = very often). The measures produce three subscales: compassion satisfaction, burnout (BO), and secondary traumatic stress (STS). Each subscale consists of 10 items. The compassion satisfaction subscale measures the extent to which the professional can derive pleasure from working or helping others. Higher compassion satisfaction scores indicate a higher level of functioning. The BO subscale measures the professional's feelings of hopelessness and challenges in dealing with their job effectively. Higher scores on the BO subscale indicate higher levels of burnout. The STS subscale measures work-related secondary exposure to individuals who have experienced trauma. A higher score on the STS subscale indicates higher levels of STS.

There are two steps to scoring the ProQOL. The first step is to reverse some items. The second step is to sum the items by subscale (Stamm, 2012). Tables one through three provide an interpretation of scores (Stamm, 2012).

Table 1

Burnout Scores

Sum of Burnout Questions	Level of Burnout
22 or less	Low
Between 23 and 41	Moderate
42 or more	High

Table 2

Compassion Satisfaction Scores

Sum of Compassion Satisfaction Questions	Level of Compassion Satisfaction
22 or less	Low
Between 23 and 41	Moderate
42 or more	High

Table 3

STS Scores

Sum of STS Questions	Level of STS
22 or less	Low
Between 23 and 41	Moderate

42 or more	High

The ProQOL 5 was found to have good reliability and validity (Stamm, 2012). Psychometric information for the ProQOL 5 came from a database of 1,289 cases produced from a multitude of studies that examined several types of professional roles (Stamm, 2012). Cronbach's alpha indicates the internal consistency of instruments, which conveys the tool's reliability (Hemsworth et al., 2017). In Mott and Martin's (2019) study, internal consistency values within their sample were: $\alpha = 0.89$ for compassion satisfaction, $\alpha = 0.81$ for burnout, and $\alpha = 0.84$ for secondary traumatic stress. In this current study, internal consistency values within the sample were: $\alpha = 0.89$ for compassion satisfaction, $\alpha = 0.68$ for burnout, and $\alpha = 0.75$ for secondary traumatic stress.

The ProQOL has good construct validity. The three subscales measure separate constructs. Compassion fatigue (combination of compassion satisfaction and fatigue) is distinct (Stamm, 2012). There is a shared variance between burnout and STS, and the two scales measure different constructs, with shared variance which likely demonstrates the distress found in both conditions (Stamm, 2012). The inter-scale correlations reveal 2% shared variance with STS and 5% shared variance with burnout. The shared variance between the two subscales is 34%.

For this study, the ProQOL 5 provided data that contributed to the correlation and impact between ACE and PQL for social workers. Per the creators of the survey, the

ProQOL5 may be freely copied as long as the author is credited, and no changes are made other than those authorized, and it is not sold (ProQOL, n.d.).

PTGI-SF

Tedeschi and Calhoun (1996) developed the Posttraumatic Growth Inventory to assess positive changes following adversity. The scale includes 21 items. Cann et al. (2010) created the PTGI-short form (PTGI-SF) to accomplish the same goal but reduce the number of items by half while preserving the desired properties from the original PTGI. The PTGI-SF consists of 10 items that include two items from each of the five domains in the original PTGI. The domains include relating to others, new possibilities, spiritual change, personal strength, and appreciation of life. Responses are rated on a 6-point Likert scale ranging from 0 (not at all) to 5 (very great degree). The scores are totaled to determine the level of growth. The potential score range for the PTGI is from 0 to 50 (Kaler et al., 2011). Higher scores indicate high growth.

Psychometrically, PTGI-SF has demonstrated strong validity and reliability (Cann et al., 2010; Steinberg et al., 2021). In Cann et al.'s (2010) sample, the PTGI-SF demonstrated good internal consistency, with a Cronbach's $\alpha = .89$. Additionally, in Steinberg et al.'s (2021) sample, the PTGI-SF demonstrated excellent internal consistency, with a Cronbach's $\alpha = .91$. Also, in this current study, sample, the PTGI-SF demonstrated good internal consistency, with a Cronbach's $\alpha = .83$. The PTGI-SF has been used in a variety of studies, producing evidence for validity. Using the PTGI-SF, Cann et al. (2009) found a correlation between PTG and variables of interest among a sample of 186 survivors of intimate partner violence, bereaved parents, and people

diagnosed with acute leukemia. In an assessment of psychometric properties of the PTGI-SF, among a sample of National Guard soldiers after a 16-month combat deployment to Iraq, Kaler et al. (2011) found evidence of concurrent validity. A concurrent relationship was found between PTG and participant well-being, post-deployment social support, and reexperiencing symptoms of PTSD.

For this study, the PTGI-SF was used to provide data that contributed to the correlation and impact between ACE and posttraumatic growth for social workers. The PTG Inventory–Short Form can be used for research and education as long as it is appropriately cited and the authors are acknowledged (Cann et al., 2010).

CES-SF

The Centrality of Events Scale (CES) was developed by Berntsen and Rubin (2006) to assess how central a major life crisis is to an individual's identity and life story. Specifically, it measures how much a person perceives a traumatic event to be a point of reference for future experiences (Steinberg et al., 2021). Berntsen and Rubin (2006) adapted the original CES into a 7-item version using the iterated principal factor analyses with a varimax rotation. Individuals complete the CES-SF in relation to their most traumatic experience, rating the extent to which they agree with various statements. The responses are rated on a Likert scale from 1 (totally disagree) to 5 (totally agree) (Berntsen & Rubin, 2006). The scores range from 7 to 35. Higher scores represent high levels of event centrality.

The CES has been used in various samples and demonstrates good reliability and validity (Boals & Schuettler, 2011; Galan et al., 2017; Steinberg et al., 2021). In Boals

and Schuettler's (2011) study, the CES demonstrated excellent internal consistency, with a Cronbach's $\alpha = .94$. In Galan et al.'s (2017) sample, the CES-SF had good reliability, with a Cronbach's $\alpha = .84$. The correlation coefficients between each item and the total score ranged from 0.30 to 0.61. The minimum loading value of the CES-SF was .50. More recently, Steinberg et al. (2021) found that the CES had excellent internal consistency, with a Cronbach's $\alpha = .93$. Additionally, in this current study, the CES-SF had good reliability, with a Cronbach's $\alpha = .87$. Evidence of good construct validity was found in the CES-SF, via its significant and positive associations with PTSD symptom severity and depressive symptomology in a sample of 707 undergraduate students from four North American universities (Berntsen & Rubin, 2006; Galan et al., 2017). Additionally, CES-SF scores from a sample of 262 undergraduate students from a university in Spain showed validity via a moderate and positive significant association with measures of depressive, anxious, and posttraumatic symptom severity (Galan et al., 2017).

For this study, the CES-SF was used to provide data that contributed to the correlation and impact between ACE and event centrality for social workers. The Centrality of Event Scale can be used for research and education if properly cited (Berntsen & Rubin, 2007).

Data Analysis Plan

The software utilized for data analysis was IBM Statistical Package for Social Sciences (SPSS) version 28 and Excel. The data was initially stored on SurveyMonkey and later exported directly from SurveyMonkey into Excel, for cleaning and screening,

then it was downloaded to an SPSS .sav file. Upon final dissertation approval, the data will be deleted from SurveyMonkey. However, the data will remain protected with encryption and stored on my computer for five years. After 5 years I will delete all data from my computer using the trash bin (feature on laptop) and then permanently delete the data by emptying the trash bin.

Data Cleaning/Screening

Data cleaning is essential to perform as it can ensure that the data is as consistent as possible (Yahya & Alyami, 2020). Upon downloading the data from SurveyMonkey, it was checked against the results in SurveyMonkey to ensure transfer accuracy. Outliers and missing data were checked to avoid data errors (Field, 2018). If the participant had more than 30% of their responses missing, they were excluded from the study (Bannon, 2015). The study examined all responses including participants without ACEs. I included participants' no ACE data in the response to research question 3 (How does ACEs predict child welfare social workers' PQL?). For participants who reported no ACEs, their data were used to answer research question 3 only, given research questions one and two surveys (Event Centrality Scale & Posttraumatic Growth Inventory) required participants to have experienced trauma.

Research Questions

RQ1: Does total ACEs experienced significantly predict child welfare social workers' PTG levels?

$H_0$1: Total ACEs experienced significantly predicts child welfare social workers' PTG levels.

H_a1: Total ACEs experienced does not significantly predict child welfare social workers' PTG levels.

RQ2: Does total ACEs experienced significantly predict child welfare social workers' event centrality levels?

$H_0 2$: Total ACEs experienced significantly predicts child welfare social workers' event centrality levels.

$H_a 2$: Total ACEs experienced does not not significantly predict child welfare social workers' event centrality levels.

RQ3: Does total ACEs experienced significantly predict child welfare social workers' PQL levels?

$H_0 3$: Total ACEs experienced significantly predicts child welfare social workers' PQL levels.

$H_a 3$: Total ACEs experienced does not significantly predict child welfare social workers' PQL levels.

Analysis Plan

To address research questions, I planned to conduct Pearson's r and five simple linear regressions to analyze the relationship between (1) ACEs and PTG, (2) ACEs and event centrality, (3) ACEs and STS, (4) ACEs and burnout, and (5) ACEs and compassion satisfaction. A correlational analysis shows whether and how strongly sets of variables are related (Field, 2018). The Pearson's r measures the strength of a relationship between two continuous variables (Field, 2018). When using Pearson's r, it

is assumed that both variables follow normal distributions, data have no outliers, and there is an expectation that the variables are linear (Field, 2018). Given that the variables were expected to meet all the assumptions and the hypotheses seeking to assess the relationship between the variables, Pearson's r was an appropriate statistical test. If a correlation was found, simple linear regressions would have been appropriate to perform next, to assess the predictiveness of ACE on the dependent variables. Simple linear regression allows researchers to determine the relationship between two continuous variables; one variable is defined as the predictor, and the other a criterion or outcome variable (Field, 2018). Given the study aimed to assess the extent of the relationship between continuous variables, a simple linear regression is appropriate.

Before completing the analyses, the assumptions of a simple linear regression and Pearson's r were assessed for linearity, homoscedasticity, and normality. Linearity assumes that there should be an approximate straight-line relationship between the outcome variables (PTG and event centrality) and the predictor variable (ACE) (Field, 2018). Homoscedasticity assumes that the scores are normally distributed around the regression line (Field, 2018). The assumption of linearity and homoscedasticity were considered together, because I can check both on a single scatterplot graph (Field, 2018). The resulting plot demonstrates whether there is a statistical relationship between what comes out of the model (Field, 2018). Further, normality assumes that data will depict a bell-shaped distribution and is assessed with a p-p plot (probability-probability plot) (Field, 2018).

Pearson's r coefficients vary from -1 (a perfect negative relationship) through 0 (no relationship) to +1 (a perfect positive relationship) (Field, 2018). For the simple regression, to determine the extent of prediction on the criterion variables (PTG and event centrality), unstandardized beta (β) coefficients for significance predictors could have been utilized. The unstandardized beta coefficients specify the mean change in the dependent variables associated with a one-unit shift in the independent variable. R-squared could have been recorded and utilized to dictate how the independent variable explains the variance in the dependent variables (Chico et al., 2021). A higher R-squared value means that the independent variable can explain a higher percentage of the variance in the dependent variable. To evaluate the strength of the relationship between the independent and dependent variables, I could have utilized correlation coefficients (β), which is Cohen's standard (Cohen, 1988). Correlation coefficient values range from small (.10-.29) to moderate (.30-.49) to large (.50) associations or relationships.

Threats to Validity

In quantitative research, various threats to validity may occur and should be considered. Internal validity questions the truthfulness of the proposition that a change in one variable over another is the cause of change in the outcome (Burkholder et al., 2016). On the other hand, external validity questions the consistency and truthfulness of findings across contexts (Burkholder et al., 2016).

Internal Threats to Validity

There are eight internal threats to validity: ambiguous temporal precedence, selection, history, maturation, regression to the mean, testing, instrumentation, and

attrition (Matthay & Glymour, 2020). Ambiguous temporal precedence refers to the lack of clarity regarding which variable occurs first (Matthay & Glymour, 2020). It is clear that the independent variable (ACE) occurred before the dependent variables, given that ACEs occur in childhood. Selection refers to the systemic differences in participants' characteristics that affect the outcome, cause bias, or are confused with causal effect (Matthay & Glymour, 2020). Selection was a threat to this study because there is no way to account nor control for all participants' characteristics that may have attributed to PTG, event centrality, or PQL. Participants' histories played a role in internal validity, given that the study focused on childhood events. Maturation was not a threat, as this was not a longitudinal study (Matthay & Glymour, 2020). Regression to the mean did not threaten the study, as data cleaning procedures included screening for extreme scores. Testing may threaten validity if measuring the outcome is concurrent with treatment and affects the measured outcomes (Matthay & Glymour, 2020). However, testing was not a threat to this study as treatment was not a component of this study. Instrumentation is the nature of a measure that may change over time (Matthay & Glymour, 2020). Instrumentation and operationalization were not a foreseeable threat to this study, as the nature of measures for all the instruments remained consistent, over time. Attrition is the loss of participants, to treatment or measurement, that can produce artificial effects if the loss is systematically correlated with other studies (Matthay & Glymour, 2020). Attrition was not a threat as this was not an experimental or longitudinal study.

External Threats to Validity

External validity threats relate to the generalizability of the study's findings, including selection bias, confounding, and interference (Hayes-Larson et al., 2019). It was necessary for this study to use a specific population, therefore, creating selection bias. Selection bias is also a threat to construct validity. Using a population of only child welfare social workers may make the results less likely to be generalizable to social workers in other fields. However, the study may be generalizable to studies focusing on child welfare social workers across settings such as government and private agencies. Confounding variables presented as a threat to this study, as there was no way to account for all variables, like the characteristics of participants. Interference was also a threat as multiple surveys were given to participants.

Mitigating Threats

Frameworks can assist in mitigating each of the threats mentioned. A framework is a recognized structure for the design and implementation of a study, including data collection methods, data management, and analytic methods (Burkholder et al., 2016). Also, all frameworks include elements for checking for quality and validity.

Ethical Procedures

When conducting research, it is the researcher's responsibility to consider their study's ethical considerations. Before recruiting participants, I applied for IRB approval through Walden University. The IRB evaluated this study for value and risk to participants. The IRB application included consent forms, recruiting materials, and data collection instruments. Ethical concerns may arise when discussing ACEs as this topic

may be triggering. For this reason, resources for participants were included but not limited to Suicide Prevention Lifeline, National Alliance on Mental Illness, and Washington, DC Access Helpline. Also, due to the perceived invasiveness of the study, the informed consent form included that participants may stop participation at any time and that resources will be provided at the point of consent and exit from the study. Additionally, the consent included information about the study's purpose, risk, time requirements, sample questions, ambiguity, and how data would be used and stored. Procedures were provided with details regarding participation benefits, potential discomfort, researcher contact information, withdrawal from study instructions, information on ambiguity, and disclosure of data collection usage (Onen & Eryilmaz Ball, 2020).

Further, due to the nature of the study, it is important to protect the privacy of those who voluntarily agree to participate in this study. Even though participants' identities were unknown, there was still an ethical requirement to keep all data stored and protected. Therefore, the data was initially stored on SurveyMonkey and, later, transferred and stored on my computer as a Microsoft Excel file and a .sav file, compatible with SPSS. Upon final dissertation approval, the data will be deleted from SurveyMonkey. However, the data will remain protected with encryption and stored on my computer for five years.

Summary

This quantitative study involved using a correlational cross-sectional survey design. I aimed to examine any potential relationships between ACE, PTG, event

centrality, and PQL. Participants completed four surveys: the ACE Questionnaire, PTG-SF inventory, CES-SF, and ProQOL 5. All surveys were completed using SurveyMonkey. Using simple linear regression, Pearson correlation, and descriptive statistics, I planned to address potential relationships as well as extent of relationships among variables. I used purposeful convenience sampling with local child welfare agencies, social media platforms, and email addresses provided by the DC licensing board. Chapter 4 includes results of the completed study, including data collection, discrepancies, descriptive and demographic characteristics of the sample, generalizability details, univariate analysis, statistical assumptions, and findings.

Chapter 4: Results

The purpose of the study was to examine the impact of ACEs on PTG, event centrality, and professional PQL (burnout, compassion satisfaction, and STS) for child welfare social workers. For RQ1, ACEs were measured using the ACEs Questionnaire. I examined total ACE scores and their relationship with total PTG scores as measured using the PTGI-SF. Additionally, I evaluated the relationship between total ACE scores and event centrality total scores as measured using the CES-SF. For RQ3, I determined the relationship between total ACE scores and total PQL scores for STS, burnout, and compassion satisfaction as measured using the ProQOL-5. In this chapter, I discuss data collection results of the study.

Data Collection

Upon receiving IRB approval (#02-01-23-1020136) on February 1, 2023, the study was posted on February 2, 2023 on social media sites. During February 2023, there were 104 responses. I manually excluded 38 surveys due to at least 30% of responses missing, as well as 10 surveys that had an ACE score of 0. If respondents did not experience any adversity, they could not complete PTGI-SF or CES questions. There was a total of 66 completed surveys (56 who experienced ACEs and 10 without ACEs). I surpassed the intended sample size of 55. I also used G*Power to examine statistical power for my sample size and ran a multiple linear regression (*t* test, fixed model, single regression coefficient) with an effect size f2 of .15, error probability of .05, power of .80, and one predictor. The required sample sizes to ensure statistical power were 43 (one tail)

to 55 (two tails). Therefore, a sample size of 55 provided sufficient statistical power for the study.

The Bureau of Labor Statistics (2022) reported there are 17,090 child, family, and school social workers employed in Washington, DC, Maryland, and Virginia. There were no statistics regarding social workers in the Washington metropolitan area. Also, there were no numbers regarding child welfare social workers specifically. Therefore, a conclusion cannot be drawn about the sample in terms of representing child welfare social worker populations specifically or social worker populations in the Washington metropolitan area.

After meeting the sample goal, data were exported from SurveyMonkey to an Excel spreadsheet and screened for missing data and outliers to avoid data errors. Data were also checked against results in SurveyMonkey to ensure transfer accuracy. After checking data, data were downloaded to SPSS.

Results

Descriptive Statistics

Demographic information pertaining to the sample of social workers who participated in the study are described in the next section. Additionally, descriptive statistics specific to metrics with respect to the PTGI-SF, CES, ProQOL5, and ACE questionnaires were also provided. Frequencies of responses for the sample and internal reliability of instruments were discussed.

Demographics

Of the 66 respondents, 84.8% (n = 56) were female and 15.2% (n = 10) were male. African Americans made up 62.1% (n = 41) of respondents. Respondents were born between 1954 and 1998. Respondents had a minimum of 1 year and a maximum of 40 years, with an average of 13.20 years as a licensed social worker. Additionally, respondents had a minimum of 1 year and a maximum 30 years, with an average of 9.39 years employment as a child welfare social worker. Table 4 includes a detailed list of gender frequency as well as race and ethnicity information. Table 5 includes numeric demographics (years of licensure, years employed, and year of birth).

Table 4

Gender and Race/Ethnicity Demographic Information

Variable	Variable Category	Percent
Gender	Female (n = 56)	84.8%
	Male (n = 10)	15.2%
Race/Ethnicity	African American (n = 41)	62.1%
	Hispanic (n = 3)	4.5%
	White (n = 21)	31.8%
	Another Race (n = 1)	1.5%

Table 5

Numeric Demographics

	N	Minimum	Maximum	Mean
Years as a licensed social worker (round to the nearest year)	66	1	40	13.20

Years employed as a child welfare social worker (round to the nearest year)	66	1	30	9.39
Year of birth	66	1954	1997	

ACE Questionnaire Responses and Total Scores

Response Frequencies

Psychometrically, .70 or higher for the ACE questionnaire is considered a good Cronbach's alpha (Hemsworth et al., 2017). For this current study, the Cronbach's alpha was .698 for the 10 item ACE questionnaire (see Table 6).

Table 6

Frequency of Responses for ACE Questionnaire

Item	Variable	Yes (*n*, %)	No (*n*, %)
1	Did a parent or other adult in the household often: Swear at you, insult you, put you down, or humiliate you? Or Act in a way that made you afraid that you might be physically hurt?	3 (4.5%)	63 (95.5%)
2	Did a parent or other adult in the household often: Push, grab, slap, or throw something at you? Or Ever hit you so hard that you had marks or were injured?	26 (39.4%)	40 (60.6%)
3	Did an adult or person at least 5 years older than you ever: Touch or fondle you or have you touch their body in a sexual way? Or Attempt or actually have oral, anal, or vaginal intercourse with you?	20 (30.3%)	46 (69.7%)
4	Did you often feel that: No one in your family loved you or thought you were important or special? Or Your family didn't look out for each other, feel close to each other, or support each other?	15 (22.7%)	51 (77.3%)
5	Did you often feel that: You didn't have enough to eat, had to wear dirty clothes, and had no one	11 (16.7%)	55 (83.3%)

Item	Variable	Yes (*n*, %)	No (*n*, %)
	to protect you? Or Your parents were too drunk or high to take care of you or take you to the doctor if you needed it?		
6	Were your parents ever separated or divorced?	34 (51.5%)	32 (48.5%)
7	Were any of your parents or other adult caregivers: Often pushed, grabbed, slapped, or had something thrown at them? Or Sometimes or often kicked, bitten, hit with a fist, or hit with something hard? Or Ever repeatedly hit over at least a few minutes or threatened with a gun or knife?	17 (25.8%)	49 (74.2%)
8	Did you live with anyone who was a problem drinker or alcoholic, or who used street drugs?	30 (45.5%)	36 (54.5%)
9	Was a household member depressed or mentally ill, or did a household member attempt suicide?	29 (43.9%)	37 (56.1%)
10	Did a household member go to prison?	14 (21.2%)	52 (78.8%)

ACE Questionnaire Total Score

For the ACE questionnaire, yes responses were scored with 1 and no responses were scored with 0. Upon completion of the questionnaire, a summed total is obtained with a score between 0 and 10. Scores between 0 and 3 are consider low and indicate respondents are not at high risk for negative health outcomes. A score of 4 or more is considered high and indicates a high risk of having negative health issues, including a higher potential for work-related issues (Felitti et al., 1998). Table 7 shows percentage scores. Of the sample of 66 participants, 40.8% had scores in the high range (4 or more), whereas 59.1% had scores in the low range (0-3).

Table 7

ACE Questionnaire Total Scores

Total Score	Frequency Number (%)
0 (*n* = 10)	15.2%
1 (*n* = 12)	18.2%
2 (*n* = 9)	13.6%
3 (*n* = 8)	12.1%
4 or more (*n* = 27)	40.8%

PTGI-SF Responses and Total Scores

PTGI-SF Frequencies

Cann et al. (2010) created the PTGI-short form based on the scale developed by Tedeschi and Calhoun (1996). The scale quantitatively measures positive changes following adversity. Psychometrically, PTGI-SF has demonstrated strong validity and reliability (Cann et al., 2010; Steinberg et al., 2021). In Cann et al.'s (2010) sample, the PTGI-SF 10 items questionnaire demonstrated good internal consistency, Cronbach's α = .89, which indicated a high level of internal consistency (Hemsworth et al., 2017; Murphy et al., 2014). In this current study, sample, the PTGI-SF demonstrated good internal consistency, with a Cronbach's α = .83. Table 8 displays the frequencies and percentages for PTG-SF.

Table 8

Frequencies of Responses on PTGI-SF

		I experienced this change to a…					
Item	Variables	I did not experience this change as a result of my crisis.	very small degree as a result of my crisis.	small degree as a result of my crisis	moderate degree as a result of my crisis	Great degree as a result of my crisis	very great degree as a result of my crisis great
		0	1	2	3	4	5
1	I changed my priorities about what is important in life.	41 (62.1%)	2 (3%)	5 (7.6%)	7 (10.6%)	0	1 (1.5%)
2	I have a greater appreciation for the value of my own life.	26 (39.4%)	4 (6.1%)	6 (9.1%)	10 (15.2%)	8 (12.1%)	2 (3.1%)
3	I am able to do better things with my life.	22 (33.3%)	12 (18.2%)	3 (4.5%)	10 (15.2%)	7 (10.6%)	2 (3%)
4	I have a better understanding of spiritual matters.	33 (50%)	5 (7.6%)	5 (7.6%)	8 (12.1%)	5 (7.6%)	0

		I experienced this change to a…					
5	I have a greater sense of closeness with others.	25 (37.9%)	13 (19.7%)	6 (9.1%)	5 (7.6%)	6 (9.1%)	1 (1.5%)
6	I established a new path for my life	22 (33.3%)	10 (15.2%)	5 (7.6%)	13 (19.7%)	5 (7.6%)	1 (1.5%)
7	I know better that I can handle difficulties.	20 (30.3%)	9 (13.6%)	8 (12.1%)	13 (19.7%)	4 (6.1%)	2 (3%)
8	I have a stronger religious faith.	35 (53%)	6 (9.1%)	3 (4.5%)	6 (9.1%)	4 6.1%)	2 (3%)
9	I discovered that I'm stronger than I thought I was.	25 (37.9%)	7 (10.6%)	4 (6.1%)	8 (12.1%)	11 (16.7%)	1 (1.5%)
10	I learned a great deal about how wonderful people are	30 (45.5%)	5 (7.6%)	8 (12.1%)	2 (3%)	10 (15.2%)	1 (1.5%)

PTGI-SF Domain Total Scores and Total Scores

The PTGI-SF consists of 10 items that include two items from five domains. The domains include relating to others (items 5 & 10), new possibilities (items 3 & 6), spiritual change (items 4 & 8), personal strength (items 7 & 9), and appreciation of life (items 1 & 2). Thirty-eight (57.5%) respondents reported growth in relating to others, 43 (65.1%) respondents reported growth in new responsibilities and personal growth, 27 (40.9%) respondents reported growth in spiritual change, and 33 (50%) respondents reported growth in appreciation of life.

Responses are rated on a 6-point Likert scale ranging from 0 (not at all) to 5 (very great degree). The sum of the scores is totaled to determine the level of growth. The potential scores range for the PTGI is from 0 to 50 (Kaler et al., 2011). Higher scores indicate high growth. Seven participants (10.6%) experienced no growth, 18 participants had a score between 1 and 10, 28 participants had a score between 11 and 30, and 3 had score of 30 or more.

CES-SF Responses and Total Scores

CES-SF Frequencies

The CES-SF 7-item quantitative scale was designed based on the scale developed by the same creators, Berntsen and Rubin (2006), to assess how central a major life crisis is to an individual's identity and life story (Berntsen & Rubin, 2006). The CES-SF had good reliability, with a Cronbach's $\alpha = .84$, which demonstrates a high level of internal consistency. In this current study, the CES-SF had good reliability, with a Cronbach's $\alpha = .87$. Table 9 displays the frequencies and percentages of the CES-SF.

Table 9

Responses on CES

Item	Variables	1 (Totally disagree)	2	3	4	5 (Totally agree)
1	I feel that this event has become part of my identity.	7 (10.6%)	16 (24.2%)	11 (16.7%)	12 (18.2%)	10 (17.9%)
2	This event has become a reference point for the way I understand myself and the world.	4 (6.1%)	11 (16.7%)	13 (19.7%)	19 (28.8%)	9 (13.6%)
3	I feel that this event has become a central part of my life story.	11 (16.7%)	10 (15.2%)	15 (22.7%)	14 (21.7%)	6 (9.1%)
4	This event has colored the way I think and feel about other experiences	6 (9.1%)	10 (15.2%)	18 (27.3%)	15 (22.7%)	7 (10.6%)
5	This event permanently changed my life.	5 (7.6%)	8 (12.1%)	17 (25.8%)	10 (15.2%)	16 (24.2%)

Item	Variables	1 (Totally disagree)	2	3	4	5 (Totally agree)
6	I often think about the effects this event will have on my future.	10 (15.2%)	11 (16.7%)	15 (22.7%)	13 (19.7%)	7 (10.6%)
7	This event was a turning point in my life.	10 (15.2%)	11 (16.7%)	16 (24.2%)	13 (19.7%)	6 (9.1%)

CES-SF Total Scores

The CES-SF consists of seven items. The responses are rated on a Likert scale from 1 (totally disagree) to 5 (totally agree) (Berntsen & Rubin, 2006). The sum of the scores is totaled to determine the level of growth and range between 7 to 35. Higher scores represent high levels of event centrality. Ten (17.9%) participants totally agreed that their ACEs had become part of their identity, and 6 (9.1%) participants agreed that their ACEs were a turning point in their lives.

ProQOL-5 Subscale Responses Total Scores

ProQOL-5- Subscale Total Score Frequencies

The ProQOL-5 is a 30-item quantitative self-report that produces three subscales: compassion satisfaction, burnout (BO), and secondary traumatic stress (STS), designed by Figley's (1995) to measure positive and negative effects experienced by helping professionals who engage with individuals exposed to traumatic experiences (Howard et al., 2015; Mott & Martin, 2019). The ProQOL-5 had good reliability, with: $\alpha = 0.89$ for compassion satisfaction, $\alpha = 0.81$ for burnout, and $\alpha = 0.84$ for secondary traumatic stress (Mott & Martin, 2019). In this current study, internal consistency values within the sample were: $\alpha = 0.89$ for compassion satisfaction, $\alpha = 0.68$ for burnout, and $\alpha = 0.75$ for secondary traumatic stress.

Table 10, 11, and 12 display the frequencies and percentages of the ProQOL5 subscale total score frequencies.

Table 10

Responses on ProQOL-5: Burnout

Sum of Burnout Questions	Level of Burnout	Frequency (%)
22 or less	Low	4 (6%)
Between 23 and 41	Moderate	61 (92.5%)
42 or more	High	1 (1.5%)

Table 11

Responses on ProQOL-5: Compassion Satisfaction

Sum of Compassion Satisfaction Questions	Level of Compassion Satisfaction	Frequencies (%)
22 or less	Low	1 (1.5%)
Between 23 and 41	Moderate	40 (60.3%)
42 or more	High	25 (37.8%)

Table 12

Responses on ProQOL-5: STS

The Sum of My Secondary Traumatic Stress Questions	My Level of Secondary Traumatic Stress	Frequency (%)
22 or less	Low	27 (40.9%)
Between 23 and 41	Moderate	39 (59.1%)
42 or more	High	0 (0%)

PROQ-5 Subscales Total Scores

ProQOL5 measures include 30 statements on a 5-point Likert scale (1 = never to 5 = very often), which produce three subscales (10 items each: compassion satisfaction, burnout (BO), and secondary traumatic stress (STS). As previously stated, the PROQ-5 requires separate scoring of each subscale. Sixty-one (92.5%) respondents had a moderate level of burnout, 40 (60.3%) respondents had moderate level of compassion satisfaction, and 39 (59.1%) respondents had a moderate level of STS.

Assumption Testing

Pearson's *r*

The Pearson's r measures the strength of a relationship between two continuous variables (Field, 2018). It is essential to ensure that the assumptions for the test are met, prior to completing a Pearson's *r*. The following discusses the assumptions are Pearson's *r* and if they are met for research questions one through three. The first assumption is that both variables follow a normal distribution (Field, 2018). According to the Shapiro-Wilk's test, which tests normality, the assumption of both variables following normal distribution in research question 1 was met, as ACEs total scores (excluded 0 scores) ($p < .001$) and PTGI-SF total scores were normally distributed. However, while ACEs total scores (excluded 0 scores) ($p < .001$) are normally distributed, CES total scores ($p = .274$) are not normally distributed. Therefore, the assumption of normality was not met for research question 2. The assumption of normality was met for three variables in research question 3, including ACEs total scores (including 0 scores) ($p < .001$), STS total scores

(p = .030), and compassion satisfaction total scores (p = .002), but not for the fourth variable, burnout, total scores (p = .059), in research question 3.

The second and third assumptions were that data have no outliers and were linear (Field, 2018). For research question 1, the assumption was not met, as ACEs total scores (excluded 0 scores) had no outliers, but PTG total scores had an outlier and was not linear. For research question 2, the assumption was met, as ACEs total scores (excluded 0 scores) and CES total scores had no outliers and were not linear. Lastly, the assumption was not met for research question 3, as ACEs total scores (including 0 scores) had no outliers, but compassion satisfaction, burnout, and STS total scores had an outlier and was not linear.

Spearman's Rank Correlation Coefficient

Given that each research question failed to meet all three assumptions for Pearson's r, it was appropriate to complete a Spearman's rank correlation coefficient. The Spearman's rank correlation coefficient is used when one or more of the following are true: the variables are not normally distributed, data includes outliers, variables are ordinal, and the relationship between the variables is non-linear and monotonic (Turney, 2022). All three research questions met these assumptions.

A Spearman's rank-order correlation was conducted to determine the relationship between ACE total scores (excluding 0) and PTGI-SF total scores (research question one), ACE total scores (excluding 0) and CES total scores (research question two), and ACE total scores and STS, event centrality, and burnout (research question three). Tables 13,14, 15, 16, and 17 displays the results of the Spearman's rank-order correlation of the

research questions.There was a weak correlation between ACE total scores (excluding 0) and PTGI-SF total scores, which was statistically significant ($r_s = .277$, $p = .039$).

Table 13

Spearman's Rank-Order Correlation Results for RQ1

			Total ACE Score 1	PTG Total
Spearman's rho	Total ACE Score 1	Correlation Coefficient	1.000	.277*
		Sig. (2-tailed)	.	.039
		N	56	56
	PTG Total	Correlation Coefficient	.277*	1.000
		Sig. (2-tailed)	.039	.
		N	56	56

* Correlation is significant at the 0.05 level (2-tailed).

There was a weak correlation between ACE total scores (excluding 0) and CES total scores, which was not statistically significant ($r_s = .242$, $p = .073$.)

Table 14

Spearman's Rank-Order Correlation Results for RQ2

			Total ACE Score 1	CE Level
Spearman's rho	Total ACE Score 1	Correlation Coefficient	1.000	.242
		Sig. (2-tailed)	.	.073
		N	56	56
	CE Level	Correlation Coefficient	.242	1.000
		Sig. (2-tailed)	.073	.
		N	56	56

There was a very weak correlation between ACE total scores and compassion satisfaction total scores, which was not statistically significant ($r_s = .002$, $p = .985$).

Table 15

Spearman's Rank-Order Correlation Results for RQ3: Compassion Satisfaction

			ACE score	CSTotal
Spearman's rho	ACE score	Correlation Coefficient	1.000	.002
		Sig. (2-tailed)	.	.985
		N	66	66
	CSTotal	Correlation Coefficient	.002	1.000
		Sig. (2-tailed)	.985	.
		N	66	66

There was a very weak correlation between ACE total scores and burnout total scores, which was not statistically significant ($r_s = .118$, $p = .345$).

Table 16

Spearman's Rank-Order Correlation Results for RQ3: Burnout

			ACE score	Burnout
Spearman's rho	ACE score	Correlation Coefficient	1.000	.118
		Sig. (2-tailed)	.	.345
		N	66	66
	Burnout	Correlation Coefficient	.118	1.000
		Sig. (2-tailed)	.345	.
		N	66	66

There was a very weak correlation between ACE total scores and STS total scores, which was not statistically significant ($r_s = .109$, $p = .382$).

Table 17

Spearman's Rank-Order Correlation Results for RQ3: STS

			ACE score	Burnout
Spearman's rho	ACE score	Correlation Coefficient	1.000	.118
		Sig. (2-tailed)	.	.345
		N	66	66
	Burnout	Correlation Coefficient	.118	1.000
		Sig. (2-tailed)	.345	.
		N	66	66

Simple Linear Regression

It is essential to ensure that the assumptions are met prior to completing a simple linear regression. Simple linear regression assumes that all variables are linear. The variables for each research question violated the assumption, as none of them was linear. Using a linear regression can result in a poorly fit model. However, to account for a nonlinear relationship between the predictor and response variable it is appropriate to conduct a polynomial regression.

Polynomial Regression

Polynomial regression assumes that the relationship between the explanatory variable and the response variable is non-linear or curvilinear, and the explanatory variables do not depend on each other. Given that polynomial regression does not require

data to have a linear relationship between them, it was appropriate to use this statistical test to determine the predictability of the independent variable on the dependent variable for each research question.

RQ1

A polynomial regression was conducted to quantify the relationship between the number of ACEs experienced by social workers and their PTG growth level (measured from 0-43). Table 18 displays the results of the polynomial regression. A sample of 56 individuals was used in the analysis. Results showed that there was not a statistically significant relationship between the explanatory variable ACEs and ACEs^2 and the response variable PTG levels ($F(55, 2) = 2.825$, $p < .068$), combined, these two explanatory variables account for 0.4 % of variability in PTG level. Therefore, we fail to reject the null hypothesis.

The regression equation was found to be:

Estimated PTG level = 11.578 + 1.457(ACEs) - .146(ACE^2)

Table 18

Polynomial Regression Results for RQ1

Model		Sum of Squares	df	Mean Square	*F*	Sig.
1	Regression	476.712	1	476.712	5.521	.022[b]
	Residual	4662.270	54	86.338		
	Total	5138.982	55			
2	Regression	495.120	2	247.560	2.825	.068[c]
	Residual	4643.862	53	87.620		
	Total	5138.982	55			
3	Regression	776.619	3	258.873	3.086	.035[d]
	Residual	4362.363	52	83.892		

	Total	5138.982	55

a. Dependent Variable: PTG Total

RQ2

A polynomial regression was conducted to quantify the relationship between the number of ACEs experienced by social workers and their centrality of events level (measured from 7-35). Table 19 displays the results of the polynomial regression. A sample of 56 individuals was used in the analysis. A sample of 56 individuals was used in the analysis. Results showed that there was not a statistically significant relationship between the explanatory variable ACEs and $ACEs^2$ and the response variable centrality of events level ($F(2, 53) = 2.992$, $p < .059$) combined, these two explanatory variables account for 6.8% of variability in centrality of events level. Therefore, we fail to reject the null hypothesis and conclude there is a correlation between the variables.

The regression equation was found to be:

Estimated event centrality level = 22.515 + 1.410(ACEs) - .388(ACE^2)

Table 19

Polynomial Regression Results for RQ2

Model		Sum of Squares	df	Mean Square	*F*	Sig.
1	Regression	112.203	1	112.203	2.667	.108[b]
	Residual	2271.511	54	42.065		
	Total	2383.714	55			
2	Regression	241.849	2	120.924	2.992	.059[c]
	Residual	2141.866	53	40.413		
	Total	2383.714	55			
3	Regression	281.798	3	93.933	2.324	.086[d]
	Residual	2101.916	52	40.421		

Total	2383.714	55	

a. Dependent Variable: CE Level

RQ3

Three separate polynomial regressions were conducted to quantify the relationship between the number of ACEs experienced by social workers and their burnout (measured from 10-42), compassion satisfaction (measured from 10-49), and secondary traumatic stress (measured from 10-41). Table 20, 21, and 22 displays the results of the polynomial regression. A sample of 66 individuals was used in each analysis.

Burnout

Results showed that there was not a statistically significant relationship between the explanatory variable ACEs and $ACEs^2$ and the response variable burnout level ($F(2, 53) = 1.084$, $p < .346$), combined, these two explanatory variables account for 0.3 % of variability in burnout. Therefore, we fail to reject the null hypothesis.

The regression equation was found to be:

Estimated burn out level = 31.212 + .442(ACEs) - .152(ACE^2)

Table 20

Polynomial Regression Results for RQ3: Burnout

Model		Sum of Squares	df	Mean Square	*F*	Sig.
1	Regression	50.244	1	50.244	1.566	.216[b]
	Residual	1732.613	54	32.085		
	Total	1782.857	55			
2	Regression	70.069	2	35.034	1.084	.346[c]
	Residual	1712.788	53	32.317		

	Total	1782.857	55			
3	Regression	275.255	3	91.752	3.165	.032[d]
	Residual	1507.602	52	28.992		
	Total	1782.857	55			

a. Dependent Variable: Burnout

Compassion Satisfaction

Results showed that there was not a statistically significant relationship between the explanatory variable ACEs and $ACEs^2$ and the response variable compassion satisfaction level ($F(2, 53) = 1.9$, $p < .160$), combined, these two explanatory variables account for 3.2 % of variability in compassion satisfaction. Therefore, we fail to reject the null hypothesis.

The regression equation was found to be:

Estimated compassion satisfaction = $37.166 + .879(ACEs) - .299(ACE^2)$

Table 21

Polynomial Regression Results for RQ3: Compassion Satisfaction

Model		Sum of Squares	df	Mean Square	*F*	Sig.
1	Regression	160.311	1	160.311	2.554	.116[b]
	Residual	3389.404	54	62.767		
	Total	3549.714	55			
2	Regression	237.465	2	118.732	1.900	.160[c]
	Residual	3312.249	53	62.495		
	Total	3549.714	55			
3	Regression	260.220	3	86.740	1.371	.262[d]
	Residual	3289.495	52	63.260		

	Total	3549.714	55

a. Dependent Variable: CSTotal

STS

Results showed that there was not a statistically significant relationship between the explanatory variable ACEs and $ACEs^2$ and the response variable STS level ($F(2, 53) = 2.511$, $p < .091$), combined, these two explanatory variables account for 8.7% of variability in STS. Therefore, we fail to reject the null hypothesis.

The regression equation was found to be:

Estimated STS level = 26.322 + .017(ACEs) - .426 (ACE^2)

Table 22

Polynomial Regression Results for RQ3: STS

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.658	1	1.658	.049	.826[b]
	Residual	1828.270	54	33.857		
	Total	1829.929	55			
2	Regression	158.389	2	79.195	2.511	.091[c]
	Residual	1671.540	53	31.538		
	Total	1829.929	55			
3	Regression	322.319	3	107.440	3.706	.017[d]
	Residual	1507.610	52	28.992		
	Total	1829.929	55			

a. Dependent Variable: STS

Summary

Pearson's *r* and simple linear regressions could not be conducted, as variables did not meet assumptions of the test. Five Spearman's rank-order correlations were run to

determine the relationship between ACE total scores and PTGI-SF total scores (RQ1), ACE total scores and CES total scores (RQ2), as well as ACE total scores and STS, event centrality, and burnout (RQ3). I determined weak correlations between ACEs and PTG, centrality of events, and PQL (burnout, compassion satisfaction, and STS). While PTG, centrality of events, PQL total scores increased in response to total ACE scores, the relationship was not very strong. To answer the research questions, five polynomial regression analyses were run. I failed to reject the null hypothesis for each research question. Total ACEs did not significantly predict PTG, centrality of events, or PQL total scores, which means PTG, centrality of events, and PQL total scores do not depend on total number of ACEs. Chapter 5 includes interpretations of findings of this study as well as details regarding future research directions and implications for positive social change.

Chapter 5: Discussion, Conclusion, and Recommendations

This quantitative survey study involved examining the impact of ACEs on PTG, event centrality, and PQL (burnout, compassion satisfaction, and STS) for child welfare social workers. To address the research questions, I used a correlational cross-sectional design with online surveys to measure variables and assess statistical relationship between them. I addressed a research gap involving possible factors that may impact child welfare social workers in the context of ACEs, PTG, event centrality, and PQL.

Spearman's rank-order correlation results indicated that PTG (r_s = .277, p = .039), centrality of events (r_s = .242, p = .073) , STS (r_s = .109, p = .382), compassion satisfaction (r_s = .002, p = .985), and burnout levels (r_s = .118, p = .345) all had weak correlations with total ACEs that were experienced, with only PTG level having a statistically significant relationship (p = .039). Polynomial regression results revealed that total ACEs that were experienced accounted for 0.4% of the variability in PTG , 6.8% in centrality of events , 0.3% in burnout, 3.2% in compassion satisfaction, and 8.7% in STS, with no statistically significant differences between total ACE scores and dependent variables.

Interpretation of the Findings

Interpretation of Findings Related to Literature

ACEs and Social Workers Demographics

The "wounded healer" archetype implies that ACEs may unconsciously motivate someone to enter helping fields, which can explain why this study of 66 child welfare social workers in the DMV determined 18.2% of participants experienced at least one ACE. Also, aligning with another study of 104 child welfare professionals in Iowa who responded to the ACE inventory, 22.6% reported exposure to at least one ACE (Lee et al., 2017). While the "wounded healer" archetype may have explained the endorsement of at least one ACE in social workers, the literature (Branson et al., 2019; Evans et al., 2018; Evans & Evans, 2019; Steen et al., 2021b), demonstrated that In addition to history of ACEs, the frequency of ACEs influenced the choice of entering the social work field rather than other fields, which may also explain why social workers have a higher frequency of reported exposure to ACEs than general populations. This may explain why 40.8% of social workers in this study were exposed to four or more ACEs on the ACEs questionnaire. According to Steen et al. (2021a), 23.6% of social workers are exposed to four or more ACEs.

Findings in this study revealed White participants reported lower ACE scores than Black participants. An assertion in literature states that ACEs is a social justice issue (Zyromski et al., 2020). Specifically, in this study ACEs is related to the racial disparities highlighted in the results from this current study and multiple recent studies that indicated minorities including Blacks and none-White Hispanics have a higher exposure to individual and cumulative ACEs (Kim et al., 2023; Mersky et al., 2021; Steen et al., 2021a). Therefore, social worker administrators must create policies that are grounded in equity and inclusion when using this study's findings to implement positive change for social worker's PQL and growth.

RQ1

Tedeschi and Calhoun (2004) asserted trauma itself does not promote growth, but rather the cognitive process that is used to acclimate following trauma leads to growth. Total ACEs experienced by participants in this current study did not significantly predict total PTG. Mohr and Rosen (2017) found acceptance, positive reframing, and emotional support significantly predicted PTG. Tranter et al. (2021) found event centrality positively mediated the relationship between ACEs and PTG.

RQ2

Total ACEs that were experienced did not predict total event centrality, nor was there a significant correlation between these two factors. Therefore, number of ACEs does not determine level of event centrality, but individual beliefs regarding the event determines how much the ACE is incorporated into their identity. Event centrality describes the extent to which memories become central and disproportionately affect

their worldview and self-conception (Steinberg et al., 2021). Among the 56 social workers in this study 74.2% reported that to some degree, their ACEs became a part of their identity, and 60.6% of social workers in this study acknowledged that their ACEs we, to some degree, a turning point in their lives.

RQ3

There were inconsistencies in findings related to ACE predictability and relationship with PQL. Inconsistencies may also be explained in terms of provider type. For example, the child welfare social workers in this current study and mental health providers in Mott and Martin's (2019) study provided specific service (social work and mental health), and the data showed that the total ACE score did not significantly predict compassion satisfaction. However, compared to the collection of child welfare professionals (social workers, counselors, lawyers, advocates) who provided various services in Howard et al.'s (2015) study, compassion satisfaction scores were significantly predicted by total number of ACEs. Additionally, while burnout is common among helping professionals and has been significantly predicted by total ACE scores (Brown et al., 2022; Howard et al., 2015; Mott & Martin, 2019), this was not true for this current study.

Furthermore, total STS scores were not predicted by total ACE scores of helping professionals and social workers (Brown et al., 2022; Howard et al., 2015). Mott and Martin (2019) found total ACE scores significantly predicted STS. There are multiple contributing and mitigating variables to STS that can promote or decrease STS levels. Leadership plays a role in social workers' PQL (Howard et al., 2015; Lee et al., 2019).

Lee et al. (2019) found coping strategies like self-care support social workers in promoting PQL. This means that depending on confounding variables, levels of STS may fluctuate regardless of total ACEs that are experienced.

Notably, there are also inconsistencies related to ACEs' relationship with PQL in the literature. The current study contributes to the inconsistencies related to ACEs' relationship with PQL. It expands knowledge regarding the correlation between ACEs and PQL by offering findings that contribute to the bringing awarenss to the professional wellbeing of social workers exclusively, which is important given that their PQL impacts service delivery for vulnerable clients. Additionally, most studies have found significant correlations in at least two PQL subcategories (Mott & Martin, 2019; Brown et al., 2022). However, this current study found no significant relationship between total ACEs experience and the PQL subcategories. Again, this may be due to using different samples from the population of helping professionals. However, these studies finding of the total number of ACEs not correlating with STS may be counterintuitive as social workers who have experienced at least one traumatic event are at higher risk of developing STS (Xu et al., 2019).

Interpretation of Findings Related to Theoretical Framework

Richard Tedeschi and Lawrence Calhoun's (2004) posttraumatic growth (PTG) theory served as the theoretical context for this study. Tedeschi and Calhoun (2004) stated that the concept of PTG refers to positive psychological changes as a result of experiencing adversity, and this study found a statistically significant relationship

between total ACEs experienced and total PTG. However, Tedeschi and Calhoun (2004) argued that how a person cognitively processes adversity plays a vital role in the process of PTG. Thereby, it is not the trauma that promotes growth but the cognitive processes used to adapt after it. This study's findings support that the trauma (ACEs) did not promote growth, as the total number of ACEs did not predict PTG. Tedeschi and Calhoun's (2004) claims of the subjectiveness of the individual cognitive process also explain the paradox of positive and negative outcomes experienced after trauma and why ACES did not significantly predict nor relate to either positive (compassion satisfaction) or negative outcomes (STS and burnout) for social workers who experienced ACES in this study.

Furthermore, Bernstein and Rubin's (2006, 2007) concept of event centrality is associated with PTG. Bernstein and Rubin (2006, 2007) suggested that memories of traumatic events become a turning point for an individual and a component of a personal narrative. However, as demonstrated in Kalmakis et al. (2020), Tranter et al. (2021), and Steinberg et al.'s (2021) research, the degree to which event become central to a person is also subjective, as it is based on the individual processing of their experiences. This also explains why there were no significant correlations between ACEs and the degree of events centrality, nor did the total number of ACEs predict the degree to which events are central to social workers' identity in this study.

Given the application of PTG theory to this study and previous studies mentioned, it is safe to argue that PTG is not automatic after experiencing trauma. For child welfare social workers who have experienced ACEs, the organizations and administrations that

employ them cannot assume that, based on social workers' career choices, they have experienced PTG. Also, given the subjectiveness of the cognitive process that leads to PTG, administrators should encourage social workers who have experienced ACEs to participate in self-care practices, specifically seeking interventions that support processing their ACEs histories to promote positive outcomes (compassion satisfaction) and decrease the negative outcomes (STS and burnout).

Limitations of the Study

There were some limitations to this study. The most notable limitation was related to instrumentation and analysis. My study consisted of a demographic form, ACE questionnaire, ProQOL-5, PTG-SF, and CES-SF, which, combined, equal 62 items. While I surpassed the calculated sample size of 55 by having 104 participants, 38 surveys were excluded due to missing at least 30 percent of responses. I assumed that many participants may have dropped out of the study due to a large number of items, and recently many people, including social workers, have experienced technostress or digital fatigue, resulting in overwhelming tiredness from the increased use of technology (Oksanen et al., 2021).

There were also limitations in the data analysis plan. I assumed the variables met Pearson's *r* and simple linear regression assumptions. However, the data violated the assumptions, and the tools used in the study scaled to themselves but not combined. There were limitations to the generalizability of this study. According to the 2021 Bureau of Labor Statistics report, nationally, there are 340,050 child, family, and school social workers in the United States. Of this total number of social workers, 2,220 are employed

in Washington, DC, 5,620 are employed in Maryland, and 9,270 are employed in Virginia (Bureau of Labor Statistics, 2022). There were no numbers regarding child welfare social workers, specifically. However, given these numbers, my sample size was considered too small to be generalized to this population of social workers.

Lastly, of the eight internal threats to validity: ambiguous temporal precedence, selection, history, maturation, regression to the mean, testing, instrumentation, and attrition (Matthay & Glymour, 2020), selection and history were threats. Selection refers to the systemic differences in participants' characteristics that affect the outcome, cause bias, or are confused with causal effect (Matthay & Glymour, 2020). Selection threatened this study because there was no way to account for all participants' characteristics that may be attributed to PTG, event centrality, or PQL. Participants' histories played a role in internal validity, given that the study focused on childhood events and the participants' ability to recall their childhood traumas.

Recommendations

Some recommendations can be made for future studies. All the correlations produced weak relationships between total ACE scores and the dependent variables (PTG, centrality of events, PQL (burnout, compassion satisfaction, and STS)) total scores, and ACE total scores did not significantly predict the dependent variables. Given those findings, I recommend that future studies consider a mixed-method approach to gather more in-depth information regarding the relationship between variables because while the number of ACEs may not be significant in the relationship to the other variable, the scoring of ACEs, by type, may demonstrate a stronger relationship between the

variables. Also, a qualitative exploration into supports and protective factors of social workers after ACEs experiences, like those found in previous studies (Butler et al., 2017; Cuartero & Campos-Vidal, 2018; Lee et al., 2017; Shepherd & Newell, 2020), as PTG is developed from a cognitive process that may include other contributing factors of growth after childhood adversity.

Additionally, future studies should further explore types of ACEs and event centrality to provide more in-depth information and understanding of the specifics of identity formation related to social workers after ACEs. Boals and Schuettler (2011) stated that negative event centrality might be a double-edged sword in that traumatic events formed as central to one's identity evoke maladaptive psychological functioning but can also contribute to specific forms. Gehrt et al. (2018) also shared that traumatic events central to one's life story have been found to have adverse correlates. The current study's findings and previous research have suggested a similar apparent paradox: ACEs can be associated with negative outcomes, such as posttraumatic stress (Kalmakis et al., 2020) but also catalyze positive changes (Brooks et al., 2019; Sheridan & Carr, 2020).

Lastly, future quantitative studies should include self-efficacy as a variable when studying social workers' ACEs, PTG, and PQL, as self-efficacy has been found to play an essential role in buffering the effects of ACEs on mental and physical health-related quality of life (Cohrdes & Mauz, 2020). By including self-efficacy, future researchers can examine if self-efficacy also acts as a mitigating effect of ACEs on PQL. Including self-efficacy can further explain the relationship between ACEs and PTG for social workers, given the emphasis on cognitive processing that evokes PTG, and self-efficacy

is considered an ability that functions when triggered by stressors and acts as a guide through the cognitive process (Bargsted et al., 2019). Self-efficacy can be measured using the Self-Efficacy Scale for Social Workers, validated in 2013, as a sufficient instrument for assessing self-efficacy beliefs in social work (Pedrazza et al., 2013).

Implications

The results showed that 40.8% of social workers endorsed exposure to four or more ACEs. Additionally, the findings showed that more than half of the social workers in the study had a moderate level of burnout, compassion satisfaction, and STS. Aside from the lack of correlation, these findings are consistent with previous studies during which social workers reported four or more ACEs. Aces were associated with negative psychological, physical, and social changes and negatively impacted social workers' wellness, workplace issues, physical and mental health, substance use, and unhealthy coping skills (Lee et al., 2017; Steen et al., 2021b). While there was no statistical significance in the findings related to PQL, these findings have practice ramifications that have implications for positive social change. The findings can be used by social work administrators to demonstrate a need for policy and practice changes or development that may include self-care or wellness practices to help decrease burnout and STS and increase compassion satisfaction. Social work administrators can also use the findings to support implementing trauma-specific and informed supervision to reduce social worker burnout and STS to increase compassion satisfaction.

Additionally, as previously discussed, social workers are often referred to as wounded healers, given their experiences with personal adversities and their work to help

others (Jung, 1966; Straussner et al., 2018). While the wounded healer archetype explains the vast number of ACEs found in this and other studies regarding social workers, it does not justify staying wounded. The findings in this study can help social workers to transition from wounded healers to healed healers by taking the initiative to participate in and utilize resources and protective factors available to them, like acceptance, positive reframing, and emotional support. The data may also encourage social workers to seek trauma-informed supervision and implement self-care practices to improve their PQL. Additionally, much of the sample experienced an absence to moderate levels of PTG, and total PTG experienced had a statistically significant relationship with total ACEs experienced. This means finding may encourage social workers to participate in therapy before and after entering the field, to address their ACEs and their impacts on them. The data can also support developing a social worker support group that further promotes growth from unresolved ACEs and improves their PQL.

ACEs can be repeated through generations when unresolved (Ports et al., 2021). The interventions mentioned can be used as prevention and treatment methods that support social workers in resolving and managing their traumas. Given the nature of the profession of social work, the learned prevention and treatment methods provided to social workers can also be provided during service delivery by social workers. Research has shown that reducing and preventing ACEs may reduce millions of cases of adverse health outcomes and improve public health, thereby creating positive social change (Gervin et al., 2022).

Conclusion

This study and previous studies have shown that social workers have ACEs, and some have endorsed a high number of ACEs. While there are inconsistencies in the literature, including this study's finding regarding the relationship between ACEs, PTG, PQL, and event centrality, there is evidence that these variables exist together. These variables provide essential information because social work administrations need appropriate support for social workers, given that they take care of vulnerable populations, have reported moderate levels of STS and burnout, and still must manage their traumas. With these supports, social workers can continue to experience PTG and improve their PQL. Furthermore, social workers in the study have demonstrated some level of PTG after ACEs. While their ACEs were considered a turning point for some participants, ACEs can also act as a constant motivational factor to further growth and transition from a wounded healer to a healed healer.

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Appendix A: Study Flyer

PHD RESEARCH

SURVEY STUDY SEEKS LICENSED CHILD WELFARE SOCIAL WORKERS IN THE DMV

I AM CONDUCTING A STUDY TO EXAMINE THE IMPACT OF ADVERSE CHILDHOOD EXPERIENCES (ACES) ON POSTTRAUMATIC GROWTH, EVENT CENTRALITY, AND PROFESSIONAL QUALITY OF LIFE (BURNOUT, COMPASSION SATISFACTION, AND SECONDARY TRAUMATIC STRESS) FOR CHILD WELFARE SOCIAL WORKERS.

ABOUT THE STUDY:

- ONE 10-15 MINUTE ONLINE SURVEY
- TO PROTECT YOUR PRIVACY, THE DOCTORAL STUDENT WILL NOT COLLECT, TRACK, OR STORE YOUR IDENTITY OR CONTACT INFO
- MAYBE EMOTIONALLY TRIGGERING DUE TO DISCUSSING TRAUMA (ACES)

VOLUNTEERS MUST MEET THESE REQUIREMENTS:

- WASHINGTON METROPOLITAN AREA (DMV) LICENSED CHILD WELFARE SOCIAL WORKERS
- BACHELORS OF SOCIAL WORK (BSW) OR MASTERS IN SOCIAL WORK (MSW)
- ONE YEAR OF CHILD WELFARE SOCIAL WORK EXPERIENCE

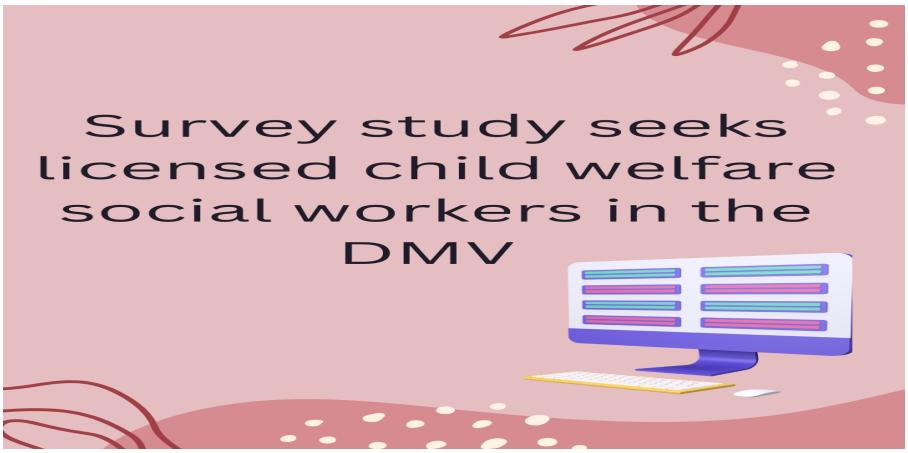
THIS SURVEY IS PART OF THE DOCTORAL STUDY FOR HOPE BEAVERS, A PH.D. STUDENT AT WALDEN UNIVERSITY.

TO VOLUNTEER SCAN THE QR CODE,

CONTACT THE RESEARCHER:HOPE BEAVERS
HOPE.BEAVERS@WALDENU.EDU

Participants needed

Appendix B: Social Media Post



Caption: I am conducting a study to examine the impact of adverse childhood experiences (ACEs) on posttraumatic growth (PTG), event centrality, and professional quality of life (PQL) (burnout, compassion satisfaction, and secondary traumatic stress) for child welfare social workers.

Volunteers must meet these requirements

- Washington Metropolitan Area (DMV) licensed child welfare social workers
- Bachelors of Social Work (BSW) or Masters in Social Work (MSW)
- one year of child welfare social work experience

About the study:

- 10-15 minute survey
- To protect your privacy, the doctoral student will not collect, track, or store your identity or contact info
- Maybe emotionally triggering due to the focus on trauma (ACEs)

This survey is part of the doctoral study for Hope Beavers, a Ph.D. student at Walden University

To volunteer: click here https://www.surveymonkey.com/r/65MWTLR

privately message or email hope.beavers@waldenu.edu for more details or questions

Appendix C: Demographic Survey

Social Workers' Growth, Identity, and Professional Quality

of Life after Adverse Childhood Experiences

Demographic Information

Please provide the following information:

Years licensed social worker

_____years

Years employed as a child welfare social worker

_____years

Race/Ethnicity

- ☐ White or Caucasian
- ☐ Black or African American
- ☐ Hispanic or Latino
- ☐ Asian or Asian American
- ☐ American Indian or Native American
- ☐ Native Hawaiian or Pacific Islander
- ☐ Another race or ethnicity

Year of birth

_____

Gender

- ☐ Male
- ☐ Female
- ☐ Transgender
- ☐ Other
- ☐ Rather not disclose

Appendix D: ACE Questionnaire

This Questionnaire will be asking you some questions about events that happened during your childhood; specifically, the first 18 years of your life.

While you were growing up, during your first 18 years of life:

1) Did a parent or other adult in the household often:

   Swear at you, insult you, put you down, or humiliate you?

   Or

   Act in a way that made you afraid that you might be physically hurt?

☐ Yes-1
☐ No-0

2) Did a parent or other adult in the household often:

   Push, grab, slap, or throw something at you?

   Or

   Ever hit you so hard that you had marks or were injured?

☐ Yes-1
☐ No-0

3) Did an adult or person at least 5 years older than you ever:

   Touch or fondle you or have you touch their body in a sexual way?

   Or

   Attempt or actually have oral, anal, or vaginal intercourse with you?

☐ Yes-1
☐ No -0

4) Did you often feel that:

   No one in your family loved you or thought you were important or special? Or

   Your family didn't look out for each other, feel close to each other, or support each other?

☐ Yes-1
☐ No -0

5) Did you often feel that:

   You didn't have enough to eat, had to wear dirty clothes, and had no one to protect you?

   Or

   Your parents were too drunk or high to take care of you or take you to the doctor if you needed it?

☐ Yes-1
☐ No-0

6) Were your parents ever separated or divorced?

☐ Yes-1
☐ No-0

7) Were any of your parents or other adult caregivers:

   Often pushed, grabbed, slapped, or had something thrown at them?

   Or

   Sometimes or often kicked, bitten, hit with a fist, or hit with something hard?

   Or

   Ever repeatedly hit over at least a few minutes or threatened with a gun or knife?

☐ Yes-1

☐ No-0

8) Did you live with anyone who was a problem drinker or alcoholic, or who used street drugs?

☐ Yes-1
☐ No-0

9) Was a household member depressed or mentally ill, or did a household member attempt suicide?

☐ Yes-1
☐ No-0

10) Did a household member go to prison?

☐ Yes-1
☐ No-0

ACE SCORE (Total "Yes" Answers): _____

Appendix E: ProQOL

Compassion Satisfaction and Compassion Fatigue (ProQOL) Version 5 (2009)

When you *[help]* people you have direct contact with their lives. As you may have found, your compassion for those you *[help]* can affect you in positive and negative ways. Below are some questions about your experiences, both positive and negative, as a *[helper]*. Consider each of the following questions about you and your current work situation. Select the number that honestly reflects how frequently you experienced these things in the *last 30 days*.

1=Never	2=Rarely	3=Sometimes	4=Often	5=Very Often

____1) I am happy.

____2) I am preoccupied with more than one person I *[help]*.

____3) I get satisfaction from being able to *[help]* people.

____4) I feel connected to others.

____5) I jump or am startled by unexpected sounds.

____6) I feel invigorated after working with those I *[help]*.

____7) I find it difficult to separate my personal life from my life as a *[helper]*.

____8) I am not as productive at work because I am losing sleep over traumatic experiences of a person I *[help]*.

____9) I think that I might have been affected by the traumatic stress of those I *[help]*.

____10) I feel trapped by my job as a *[helper]*.

____11) Because of my *[helping]*, I have felt "on edge" about various things.

____12) I like my work as a *[helper]*.

____13) I feel depressed because of the traumatic experiences of the people I *[help].*

____14) I feel as though I am experiencing the trauma of someone I have *[helped]*.

____15) I have beliefs that sustain me.

____16) I am pleased with how I am able to keep up with *[helping]* techniques and protocols.

____17) I am the person I always wanted to be.

____18) _My work makes me feel satisfied.

____19) I feel worn out because of my work as a *[helper].*

____20) I have happy thoughts and feelings about those I *[help]* and how I could help them.

____21) I feel overwhelmed because my case [work] load seems endless.

____22) I believe I can make a difference through my work.

____23) I avoid certain activities or situations because they remind me of frightening experiences of the people I *[help]*.

____24) I am proud of what I can do to *[help]*.

____25) As a result of my *[helping]*, I have intrusive, frightening thoughts.

____26) I feel "bogged down" by the system.

____27) I have thoughts that I am a "success" as a *[helper]*.

____28) I can't recall important parts of my work with trauma victims.

____29) I am a very caring person.

____30) I am happy that I chose to do this work.

Appendix F: PTGF-SF

Indicate for each of the statements below the degree to which this change occurred in your life as a result of your crisis (**ACEs)**, using the following scale.

0= I did not experience this change as a result of my crisis.

1= I experienced this change to a very small degree as a result of my crisis.

2= I experienced this change to a small degree as a result of my crisis.

3= I experienced this change to a moderate degree as a result of my crisis.

4= I experienced this change to a great degree as a result of my crisis.

5= I experienced this change to a very great degree as a result of my crisis.

____1) I changed my priorities about what is important in life. (V-1)

____2) I have a greater appreciation for the value of my own life. (V-2)

____3) I am able to do better things with my life. (II-11)

____4) I have a better understanding of spiritual matters. (IV-5)

____5) I have a greater sense of closeness with others. (I-8)

____6) I established a new path for my life. (II-7)

____7) I know better that I can handle difficulties. (III-10)

____8) I have a stronger religious faith. (IV-18)

____9) I discovered that I'm stronger than I thought I was. (III-19)

____10) I learned a great deal about how wonderful people are. (I-20)

Note: Scale is scored by averaging all responses. Factors can be scored by adding responses to items on each factor. Caution should be used when using factor scores based on only two items. When using the PTGI-SF the total score should be used, rather than factor scores. Items to which factors belong are not listed on the form administered to participants. Number in parentheses with Factor is the item number from the original PTGI.

Appendix G: CES

Please think back upon the most traumatic event (ACEs) in your life and answer the following questions in an honest and sincere way, by circling a number from 1 to 5.

1) I feel that this event has become part of my identity.

   Totally disagree 1 2 3 4 5 Totally agree

2) This event has become a reference point for the way I understand myself and the world.

   Totally disagree 1 2 3 4 5 Totally agree

3) I feel that this event has become a central part of my life story.

   Totally disagree 1 2 3 4 5 Totally agree

4) This event has colored the way I think and feel about other experiences

   Totally disagree 1 2 3 4 5 Totally agree

5) This event permanently changed my life.

   Totally disagree 1 2 3 4 5 Totally agree

6) I often think about the effects this event will have on my future.

   Totally disagree 1 2 3 4 5 Totally agree

7) This event was a turning point in my life.

   Totally disagree 1 2 3 4 5 Totally agree