MAKING SENSE OF THE 70%: AWARENESS OF THE ADVERSE CHILDHOOD EXPERIENCE (ACE) SCORE AND TRAUMA-INFORMED PRACTICES OF SERVICE PROVIDERS IN BUTTE COUNTY

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A Thesis

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To the Faculty of

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Master of Social Work

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by

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Kate Scowsmith

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DEDICATION

To all the resolute dreamers, thinkers, conceivers, organizers and believers that step outside their comfort zone for the betterment of others, communities, and the world.

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ABSTRACT

MAKING SENSE OF THE 70%: AWARENESS OF THE ADVERSE CHILDHOOD EXPERIENCE (ACE) SCORE AND TRAUMA-INFORMED PRACTICES OF SERVICE PROVIDERS IN BUTTE COUNTY

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Research has shown that exposure to trauma has long-lasting, pervasive, debilitative effects upon a person's biological, cognitive, mental, and social functioning over their lifetime (Anda et al., 2006). The Adverse Childhood Experiences (ACE) study was developed to understand potential relationships between childhood events and health outcomes later in life (Larkin, Felitti, & Anda, 2014). Within California, a county breakdown reveals that over 70% of Butte County residents scored at least a one on the ACEs scale (Stevens, 2014). Trauma informed care (TIC) is a strengths based approach that is rooted in an understanding of trauma and responsiveness to trauma (Bassuk et al, 2017). A review of the literature reveals that TIC is well discussed in literature theoretically and through case studies, but there is little research on how TIC is implemented and viewed by providers within different fields (Donisch, Bray, & Gewirtz, 2016). Using a mixed method online survey, this research project examined Butte

County providers' awareness of Adverse Childhood Experience Score (ACES) and trauma-informed practices in the fields of medicine, education and social services serving Butte County (N=164). Recommendations for further study, a discussion of the findings, and implications for social work practice are discussed.

CHAPTER I

INTRODUCTION

Background

The tremendous and pervasive consequences of unaddressed trauma in people's lives were most blatant and revealing to me when I worked as a social work intern in home health and hospice. Research has shown that exposure to trauma has long-lasting, pervasive, debilitative effects upon a person's biological, cognitive, mental, and social functioning over their lifetime (Anda et al., 2006) and can contribute to early mortality rates (Brown et al., 2009). It was a sobering experience working with individuals who were elderly, facing debilitating illnesses, and were at the end of their lives while mitigating circumstances initiated by trauma. Trauma interrupted, ignored or left unaddressed, looks different at the end of life in comparison to the beginning. For eight years, I worked with special education preschoolers and their families in a nurturing, understanding school environment. Many children I worked with had been exposed to adverse experiences, including their family members or other support systems.

Typically, when educators knew about trauma, interventions were incorporated into the child's curriculum. However, outcomes were different if families did not disclose adversities to the school district. While some children received care for their exposure, other children did not get services they could have benefited from them had there been more transparency. Observing this pattern, I began to see tremendous need for a more wide spread, supportive, and consistent approach to serving children and their families more dimensionally.

Currently, as a social work intern in a campus student health center, I am able to work in

an environment that strives to be trauma-informed. The medical chief of staff, who has an extensive background in working with trauma-exposed children, is highly committed towards cultivating a trauma-informed staff: from a patient's first point of contact to the last. Working in a trauma-informed environment puts theory into practice, a way to see the great possibilities that can be cultivated from promoting safe, trustworthy, collaborative, empowering, interactive, and culturally competent service (Substance Abuse and Mental Health Services Administration [SAMHSA], 2015).

The most remarkable benefit I was able to witness from implementing trauma sensitive approaches was the relationships that could be built with clients as they interacted with all fields of service offered at the clinic (medical, case management, social workers, front desk workers, pharmacy, etc.). Learning about the critical role social workers occupy in facilitating a "therapeutic alliance", a relationship founded on "empathy, congruence, and unconditional positive regard" (Rogers, 1951, p.116), encouraged me to value the benefits of trauma sensitive interactions all the more.

Thinking about the vulnerable populations I had worked with (preschool aged children, college students, and those requiring home health and hospice services) also strengthened my belief in utilizing the values of trauma-informed approaches. Preschool is one of the earliest encounters children have with the education system, and their parents or guardians also need that therapeutic alliance with the school system they are entrusting to care for their child. The safety and trust that can be offered through schooling is so critical when taking into account that by four years old, one in four children have either experienced or witnessed a potentially traumatic event (Briggs-Gowan et al., 2010). Additionally, a national sample concluded that 60% of children from 0-17 years old experienced or was witness to some form of victimization (child

maltreatment, bullying, or assault) within the past year (Finkelhor, Turner, Ormond & Hamby, 2009). Children and their families need strong relationships with the education system not only to establish a therapeutic alliance for all future interactions, but also to find support in the situations they may be potentially encountering when they first engage with the school system. Children exposed to trauma benefit from preschool programs that provide an opportunity for early identification and intervention with on-site treatment and prevention (Bratton, 2014).

According to Read et al. (2011), a substantial percentage (66%) of college students entering their first year report a history of trauma that met the criterion within the Diagnostic and Statistical Manual of Mental Disorders (5th ed.; DSM–5; American Psychiatric Association, 2013*).* In a study of 575 college students, Chang, Yu, Chang, O. D., & Hirsch, (2015) found that there may be substantial benefits to cultivating high hope in college students especially for those students exposed to trauma. For many college students that utilize the campus student health clinic, this is their first interaction with medical or mental health services on their own (without parental or guardian support). Establishing a strong therapeutic alliance is so crucial to their immediate needs but also their long-term perception and trust of services they may require in the future.

Fostering therapeutic alliances between patient and medical provider extends to all age groups and specialties in medicine; as stated in the General Medical Council "patients must be able to trust doctors with their lives and health", maintaining trust is one of the guiding principles for physicians (General Medical Council, 2017). Estimates suggest that up to 70% of the general population in the United States have been exposed to trauma (Frissa et al., 2016) with 70%-90% of elderly adults (65 and older) having been exposed (Norris, 1992).

In the social services field, the percentage of individuals exposed to trauma in various

settings is monumental with 90% of individuals seeking mental health services (SAMHSA, 2015). Exposure to trauma during childhood and adolescence is correlated to increased utilization of multiple systems of service (Briggs et al., 2013).

Coinciding with my work in the field, I was enriched by coursework and literature within my graduate program that expanded my knowledge base on trauma-informed practices and childhood adversities. The Adverse Childhood Experiences (ACE) study was developed to understand potential relationships between childhood events and health outcomes later in life (Larkin, Felitti, & Anda, 2014). It was found that this relationship was profound, linking early exposure to adverse experiences to many risky health behaviors (smoking, drinking, substance abuse, sexual behaviors, etc.) and health problems (cancer, chronic obstructive pulmonary disease, and heart disease) (Dong et al., 2004).

My experiences and education led me to become more interested in trauma-informed approaches on a local level. In 2016, I became involved with a local ACES coalition that was interested in addressing ACEs and interventions within Butte County. Through these meetings, I was exposed to the idea of surveying the local population about their knowledge of the ACE study. As a social worker about to embark into a field where I will certainly encounter trauma-exposed individuals, I grew curious about what providers knew about trauma and interventions within their settings. My background within these fields compelled my interest in surveying providers.

Statement of the Problem

This research project will examine Butte County providers' awareness of Adverse Childhood Experience Score (ACES) and trauma-informed practices in the fields of medicine, education and social services serving Butte County. Traumatic events experienced in childhood

have lasting implications on an individual throughout their lifetime: impacting health, education, and social development (Felliti et al., 1998). Within California, a county breakdown reveals that over 70% of Butte County residents scored at least a one on the ACEs scale (Stevens, 2014). With such a high percentage of Butte County's population being exposed to traumatic experiences, it is essential that providers integrate trauma-informed practices within their respective fields. Through a mixed methods approach, this research will gather data through a survey that will be administered to Butte County professionals over a two month period. This study addressed questions pertaining to the level of awareness of ACE scores amongst professionals, how they vary among disciplines, and how trauma-informed practices are being implemented or not within Butte County service providers. Finally, through a qualitative questionnaire, providers offered their perspectives and feedback on what is needed to integrate trauma-informed approaches in their respective fields.

Purpose of the Study

In order to best serve populations affected by trauma, a multifaceted study was undertaken to assess local providers and their awareness of trauma-informed practices and adverse childhood experiences. To address the various services individuals access, the study examined trauma-informed practice in the fields of medicine, education, and social services. For patients, clients, and students accessing services who have been exposed to trauma it is pertinent to understand how trauma informed practices are being implemented within agencies serving these individuals. If practitioners are not screening for trauma, or implementing practices that best serve trauma exposed clients, research suggests the consequences of trauma exposure will continue into adulthood (Felliti et al., 1998). The purpose of this study is to explore the extent professionals in the field are implementing trauma informed practices and understand the

influence of trauma in the lives of the people they serve. Implementing trauma informed practices could help address the high incidence of adverse childhood experiences within Butte County.

Definition of Terms

Trauma

Substance Abuse and Mental Health Services Administration (SAMHSA) defines trauma, experienced by individuals, as a result from "an event, series of events, or set of circumstances experienced by an individual as physically or emotionally harmful or life-threatening with lasting adverse effects on the individual's functioning and mental, physical, social, emotional, or spiritual well-being (SAMHSA, 2015). For the purpose of this study, this definition of trauma will be utilized.

Trauma Informed Care, Trauma-Informed Approach and Trauma-Informed Practice

SAMHSA defines Trauma-Informed Care (TIC) as the "adoption of principles and practices that promote a culture of safety, empowerment, and healing" (SAMHSA, 2015). Trauma-Informed Approach is "a program, organization, or system that is trauma-informed:

1. *Realizes* the widespread impact of trauma and understands potential paths for recovery;
2. *Recognizes* the signs and symptoms of trauma in clients, families, staff, and others involved with the system;
3. *Responds* by fully integrating knowledge about trauma into policies, procedures, and practices; and
4. Seeks to actively resist *re-traumatization*." (SAMHSA, 2015).

For the purpose of this research, Trauma-Informed Practice (TIP) is the application of a Trauma-

Informed Approach and TIC across different fields and settings. Additionally, SAMHSA identifies a set of key principles that a Trauma-Informed Approach should integrate that are adaptable to different settings:

1. Safety
2. Trustworthiness and Transparency
3. Peer support
4. Collaboration and mutuality
5. Empowerment, voice and choice
6. Cultural, Historical, and Gender Issues (SAMHSA, 2015).

Trauma-Specific Interventions

SAMHSA also identifies trauma-specific interventions, where programs recognize:

- The survivor's need to be respected, informed, connected, and hopeful regarding their own recovery
- The interrelation between trauma and symptoms of trauma such as substance abuse, eating disorders, depression, and anxiety
- The need to work in a collaborative way with survivors, family and friends of the survivor, and other human services agencies in a manner that will empower survivors and consumers (SAMHSA, 2015).

There are many programs that use psychosocial educational empowerment interventions, these are some examples of programs used in public system settings: Addiction and Trauma Recovery Integration Model (ATRIUM); Risking Connection; Sanctuary Model; and Seeking Safety (SAMHSA, 2015).

Fields: Social Services, Medical, and Education

Research was conducted within three different professional disciplines, where the field of:

1. *Education* is defined as a location or space where "the process of receiving or giving systematic instruction, especially at a school or university" occurs ("Education", n.d.);
2. *Medical* is a location or space "requiring or devoted to medical treatment" ("Medical, n.d.); and
3. *Social services* is a location or space aiming "to promote social well-being" and "organized philanthropic assistance" ("Social Service", n.d.).

CHAPTER II

LITERATURE REVIEW

Introduction

The literature review will provide background on childhood trauma in the United States and describe how trauma influences the health and well-being of individuals. Background on the Adverse Childhood Experiences study (ACEs) conducted by Kaiser Permanente between 1995 and 1997 will also be included (Centers for Disease Control and Prevention [CDC], 2016). The significance of trauma upon different aspects of health and well-being will be organized by: 1) Medical and Health Challenges, 2) Social and Emotional Challenges, and 3) Cognition and Neurodevelopment: Impact on Education. The impression trauma has upon vulnerable populations and the generational implications of trauma will be discussed, following a discussion of the global and local efforts to address these implications.

Trauma in the United States

Approximately 90% of American children have or will experience some form of trauma in their lives (Horner, 2015). According to the U.S. Department of Health & Human Services, almost 700,000 children were mistreated in 2012 with trauma ranging from neglect (experienced by 78% of these children) and physical and sexual abuse (experienced by 27%) (Horner, 2015). The American Psychological Association reports 39%-85% of children in the United States witness community violence; 25%-43% are exposed to sexual abuse; and 7.9 million American children received emergency medical care in 2006 for a variety of unintentional injuries

(Children and Trauma, 2015). Other forms of trauma, according to The National Child Traumatic Stress Network (Types of Traumatic Stress, n.d.), include community violence, domestic violence, medical trauma, natural disasters, refugee and war zone trauma, school violence, and terrorism.

Trauma exists in many forms and within many situations. Much like the history of childhood itself, trauma in children is equally complicated and multifaceted. The experience of trauma affects children across all demographics within the United States, yet the severity and nature of its impact interacts differently within different groups. Children within the additional factors of poverty, racial and ethnic minority groups, and exposure to substance abuse experience a greater likelihood of experiencing trauma as reported by Janice L. Cooper (2007). While exposure may permeate groups differently according to demographics, children who experience trauma present the same symptoms following various degrees of exposure.

Adverse Childhood Experiences Study

The CDC (2016) describes that between 1995 and 1997, Kaiser Permanente developed and conducted two sessions of data collection with the Adverse Childhood Experiences Study (ACEs). The study was implemented to address growing suspicions that children's physical ailments were correlated with traumatic experiences (Burke Harris, 2014). Participants were given gender designated surveys, a "Family Health History Questionnaire" and a "Health Appraisal Questionnaire" through the mail (CDC, 2016). The surveys were utilized to gather data on participants' potential histories of "child abuse and neglect, household challenges, and other socio-behavioral factors" (CDC, 2016). Following the questionnaires, participants were administered surveys where adverse childhood experiences were organized into seven categories: "psychological, physical, or sexual abuse; violence against mother; or living with household

members who were substance abusers, mentally ill or suicidal, or ever imprisoned" (Felitti et. al, 1998). Answering "yes" to any of the questions within each category is valued as one ACE score (Felitti et.al, 1998).

Utilizing the top ten risk factors that lead to higher morbidity and mortality rates in the United States, researchers were able to relate findings from the ACEs study to health outcomes of the participants (Felitti et.al, 1998). Risk factors including smoking, obesity, physical inactivity, depressed mood, suicide attempts, alcoholism, drug abuse, drug abuse of family members, a high number of sexual partners over a lifetime, and history of sexually transmitted disease were assessed in the two questionnaires and results were correlated with the ACE survey (Felitti et al, 1998).

The ACEs study and other trauma research has since explored "the biopsychosocial susceptibilities and resiliencies contributing to both health and disease later in life" (Larkin, Felitti, & Anda, 2014, p. 1). This perspective encourages the perception of the individual and the whole, acknowledging that the factors of development and behaviors over a person's life are developed through cultural and systemic frameworks (Larkin, Felitti, & Anda, 2014, p. 2). A biopsychosocial framework reveals trauma exposure's influence can be separated into medical and health challenges, social and emotional challenges, and cognition and neurodevelopment.

Medical and Health Challenges

The Centers for Disease Control and Prevention (CDC) illustrated an individual's projected outcomes on disease risk factors and quality of life over the course of their lifetime (CDC, 2016; see Appendix A). The pyramid begins at conception with the onset of adverse childhood experiences at the base. As individuals age, moving toward the top of the pyramid, exposed individuals experience impaired social, emotional, and cognitive function, which can

promote the adoption of risky behaviors that then initiate disease, disabilities, and social problems (CDC, 2016). The pyramid illustrates the destructive, cumulative ways trauma can perpetuate additional challenges and potentially early death over the course of a lifetime.

According to Anda et al (2006), childhood trauma exposure is the most significant public health concern in the United States. In Felitti et. al (1998), the Kaiser Permanente's ACEs study demonstrated that a strong correlation exists between the exposure of adverse childhood experiences and health conditions such as: heart disease, cancer, bronchitis or emphysema, history of hepatitis, bone fractures, and poor self-rated health. More specifically, the higher the ACEs score the more at risk an individual is for more chronic health conditions: 260% more likely to have chronic obstructive pulmonary disease (COPD), 250% more likely to contract hepatitis, 460% more likely to experience depression, among many others (Burke Harris, 2014). A further review of ACEs data suggested a strong correlation between the number of ACEs and risk of premature deaths of family members (Anda, 2009).

ACEs impacts other areas of an individual's health, as studies have found other correlations between adverse childhood experiences and different symptoms and behaviors. Exposure to trauma as a child makes individuals more prone to headaches (Anda, Tietjen, Schulman, Felitti, & Croft, 2010), sleep disturbances (Chapman et al, 2011), premature death (Brown et al, 2007), risky sexual behaviors (Hillis, Anda, Felitti, & Marchbanks, 2001), and childhood autobiographical memory disturbance ([CAMD], Brown et al, 2007). Exposure to traumatic events during childhood create lasting biological implications. Within the last twenty years, more research and interest has shifted from biological understandings of mental health toward accounting for adverse environmental factors (Larkin & Read, 2008).

Social and Emotional Challenges

There is a tremendous body of work that connects childhood trauma to many negative mental health, physical health, and social and emotional outcomes within childhood through to adulthood (Larkin & Read, 2008). Exposure to childhood adversities is linked to psychiatric disorders in adulthood, including: depression, anxiety, substance abuse, eating disorders, post-traumatic stress disorder (PTSD), sexual dysfunction, personality disorders, dissociation, and higher risk for suicide (Larkin & Read, 2008). The CDC (2016) describes a "dose-response" outcome with early trauma exposure, meaning "that as the dose of the stressor increases the intensity of the outcome also increases". Social and emotional dose-response outcomes from the ACEs study include: depression, alcoholism and alcohol abuse, drug abuse, financial stress, risk for intimate partner violence, multiple sexual partners and risky sexual behavior, suicide attempts, unintended pregnancies and adolescent pregnancy, risk for sexual violence, and poor work performance (CDC, 2016). Essentially, as the stressors of trauma increase so do the detrimental social and emotional outcomes.

A strong correlation exists between childhood trauma exposure and elevated risk of psychiatric disorders and suicidal ideation (Afifi et al, 2008). These outcomes carryover to children receiving services. Children receiving different components of social services are more likely to have experienced trauma with 50% in child welfare, 60-90 % in juvenile justice, 83-91% in neighborhoods with high crime, and 59-91 % in the mental health system (Cooper, 2007).

Cognition and Neurodevelopment

Maltreatment during childhood can be considered the most influential predictor of poor mental health during the course of a lifetime, greatly increasing risk factors for a expansive range

of psychiatric challenges emanating during childhood (McCrory, Gerin, & Viding, 2017). Adverse childhood experiences often take place during a sensitive period of development, when a child's nervous system is going through significant changes in maturation and organization (Gilles, 1999). Research is minimal on the growing number of trauma-exposed children and the educational implications of addressing these challenges in the educational and counseling services fields (O'Neill, Guenette, & Kitchenham, 2010). Children exposed to trauma are at risk for numerous academic and behavioral challenges in classroom settings based on consequences from environment and "disorganized attachment relationships" (O'Neill, Guenette, & Kitchenham, 2010).

Compas (2006) describes the "allostatic load" as the result of repeated use of the body's stress response systems, which create physical disease and disordered emotional and behavioral functioning. Frequent exposure, initially, manifests in physical and psychosocial symptoms; the second process unfolds within neurodevelopment (Compas, 2006). Unfortunately, the areas of the brain most affected, the hippocampus and prefrontal cortex, are the components of the brain that are most utilized for coping, retaining information, and adapting to stress (Compas, 2006). The excessive activation of a child's stress response system creates impairment of emotional regulation, which then causes a child's inability to appropriately behave in classroom settings, focus and retain educational material (Mendelson, Tandon, O'Brennan, Leaf, & Ialongo, 2015).

For children from 0-6 years old, as reported by the National Child Traumatic Stress Network, trauma influences outcomes at cognitive, behavioral, and physiological levels (Symptoms and Behaviors Associated with Exposure to Trauma, n.d.). For cognitive: poor verbal skills, memory problems, attention and learning deficits, learning disabilities, and poor skill development (Symptoms and Behaviors Associated with Exposure to Trauma, n.d.). Behavioral

symptoms include: aggression, explosive temper, negative attention seeking, regressive behaviors, reenacting the abuse, excessive screaming or crying, easily startled, inability to trust others, self-blaming, fear and avoidance, irritability and sadness, anxiety, and being withdrawn (Symptoms and Behaviors Associated with Exposure to Trauma, n.d.). Physiological symptoms include low weight, poor appetite, digestion problems, stomach-aches and headaches, sleep disorders, and physically regressive behaviors like bed wetting (Symptoms and Behaviors Associated with Exposure to Trauma, n.d.).

Schwartz and Davis (2006) express that children who struggle with emotional attachments because of trauma exposure are more likely to be involved in special education and serious emotional disturbance (SED) classrooms. The cognitive, behavioral, and physiological behaviors that result from trauma exposure in childhood create detrimental consequences for students' academic outcomes that extend beyond learning disabilities: fear, hyperactivity, aggressive behaviors, somatic issues in younger children, depression and self-harm in adolescents (Gabowitz, Zucker, & Cook, 2008). In an environment teeming with activity, trauma disrupts a child's ability to enact appropriate responses to stimuli (Van der Kolk, 1989). Experiencing those symptoms create further complications with how children interact with their peers and educators, interfering with a child's ability to assimilate and adjust to new information (van der Kolk, 1989).

Dr. Nadine Burke led a study on adverse childhood experiences of her pediatric patients in Northern California (Burke Harris, 2014). Following a survey of 701 children, the results of her study revealed that participants with an ACE score of four or more were more likely to experience learning and behavioral problems at school (Burke et al, 2011). This statistic was made more alarming by comparing those children with at least four ACEs to children without

ACEs in regards to learning and behavior problems (51.2% vs. 3% respectively) (Burke et al, 2011).

Statistically, trauma exposed youth in school settings are more likely to present with inadequate social skills, an increase of internalizing and externalizing behaviors, and less social interaction (Shonk & Cicchetti, 2001). Additionally, students who are trauma exposed are more likely to have lower grade point averages (Hurt, Malmud, Brodsky, & Giannetta, 2001); decreased graduation rates from high school (Grogger, 1997); score lower on student achievement tests and course grades, and have higher potential for suspension, expulsion, and failure in school (Wolpow, Johnson, Hertel, & Kincaid, 2009). Adverse childhood experiences have a detrimental influence on the probability of individuals later enrolling for college (Filipkowski, Heron, & Smyth, 2016). Individuals who do successfully enroll in college, who have reported experiencing at least one traumatic event in their lives prior to college, report poorer abilities to adjust to college: socially, emotionally, and academically (Banyard & Cantor, 2004).

Vulnerable Populations

Trauma exposure can affect all individuals, but researchers have worked to identify populations that are most at risk. The statistical extent of childhood trauma is tremendous and it is evident that trauma is the catalyst for a range of mental, social, and physical problems with a particular affect minority and poverty groups (de Arellano & Danielson, 2008). Nationally, the United States ethnic minority populations are expected to surpass non-ethnic minority populations by the year 2050 (U.S. Bureau of the Census, 2003). Given these changing populations in America, there is urgent need for practitioners to be prepared and responsive to the diverse challenges in American communities through culturally competent practices (de

Arellano & Danielson, 2008).

Populations experience the ramifications of trauma differently, for example, of the populations exhibiting suicidal behaviors; Native American populations (including Alaskan Natives) are 2.5 times more at risk; adolescent Latinas are at 1.5 times greater risk; and Gay, Lesbian, Transgender, Bisexual and Questioning youth are 2 times at greater risk (Cooper, 2007). Cooper (2007) also includes that Gay, Lesbian, Transgender, Bisexual and Questioning youth are twice as likely to experience trauma; exposure to substance abuse places a child at four times the risk; and homeless children are 50% to 66% more likely to experience trauma. It is estimated that children experience at least one trauma every year (Finkelhor, Turner, Ormond, & Hamby, 2009). Among low-income populations, homelessness, and interaction with child welfare are highly correlated to exposure to trauma (Bassuk, Unick, Paquette, & Richard, 1996).

Manifestations of trauma and accessibility to treatment, uniquely permeate other populations and subgroups: trauma exposed elderly populations had fewer close friends, financial hardships and perceived more treatment-seeking stigma than those elderly not exposed (Pless Kaiser, Seligowski, Spiro III, & Chopra, 2016); trauma survivors encounter unique barriers specific to trauma, especially in the domain of fearing re-traumatization (Kantor, Knefel, & Lueger-Schuster, 2017); the majority of Central American migrants entering the United States border have experienced significant trauma stemming from violence and persecution in their country of origin (Keller, Joscelyne, Granski, & Rosenfeld, 2017); individuals experiencing homelessness have high prevalences of each ACE score (Roos et. al, 2013); maltreatment and adverse experiences elevates risk of incarceration, particularly for women (Roos et.al, 2016); health outcomes, race, and exposure to ACEs are interrelated (Slack, Font & Jones, 2017); and ACEs elevate the odds of HIV risk, particularly for males at one ACE exposure and females at

three or more exposures (Lin, Deng-Min, & Yookyong, 2016).

Another important population to consider are the service providers that administer services to trauma-exposed populations. Russel, Gill, Coyne, and Woody (1993) found that master of social work students, more than any other area of graduate study, were more likely to have experienced adverse experiences in childhood. Rompf and Royse (1994) found that early exposures to trauma were actually associated with the choice of entering the social work field in adulthood. Whether a service provider has been exposed to trauma or not, exposure to populations experiencing the consequences of trauma must be considered. For those who serve trauma-exposed populations, who are in close proximity to the emotions involved in retelling and reenacting traumatic events, secondary trauma is a likely experience (Elwood, Mott, Lohr, & Galovski, 2011).

The National Child Traumatic Stress Network (2011) reports that as much as 50% of those in helping professions are at great risk for secondary trauma or experience symptoms of Post-Traumatic Stress Disorder ([NCTSN], 2011). Secondary trauma affects "therapists, counselors, doctors, lawyers, teachers, journalists, friends, family members, and other secondary witnesses to trauma" (Caffrey, 2016). Consequences of overexposure to secondary trauma result in symptoms involving intrusion (replaying images, persistent thoughts), avoidance (avoidance of stimuli stemming from trauma, numbing), and arousal (anxiety symptoms, sleep disturbances, dysregulation) (Figley, 1995). Unaddressed secondary trauma leads to more complex and detrimental problems like job dissatisfaction and low retention levels across fields: according to the National Commission on Teaching and America's Future (NCTAF), 50% of all new educators leave the profession by their fifth year (Hunt & Carroll, 2003). In social services, turnover rates can range from 30-60% annually and can stem from burnout, job dissatisfaction,

stress, and lack of supports (Mor Barak, Nissly, & Levin, 2001); and in the medical profession, 30% to 68% of physicians in the United States experience burnout symptoms (Schrijver, 2016).

Lasting Impacts of Trauma

ACEs experienced on the maternal side carry negative physical and mental health implications for children that linger into adulthood (McDonnell & Valentino, 2016). While trauma exposure is detrimental on the individual level, particular consideration must be taken on the generational level. Maternal ACEs have been shown to be related to prenatal depressive symptoms, higher postnatal depression (McDonnell & Valentino, 2016). Furthermore, expectant mothers who have experienced ACEs are more likely to have infants who present with maladaptive socioemotional symptoms (McDonnell & Valentino, 2016). Research by Folger et. al (2017), found that maternal interpersonal trauma was associated with poor developmental outcomes for infants. Trauma-exposed mothers have psychosocial challenges that materialize within their offspring's social and emotional development (Folger et al, 2017).

Trauma experienced by one individual carries further complications within their support system: the offspring of incarcerated parents are more likely to present with maladaptive behaviors, anger, and symptoms of posttraumatic stress disorder (Bockneck, Sanderson, & Britner, 2009); and children of incarcerated parents are more likely to engage in early substance use (Roettger, Swisher, Kuh, & Chavez, 2011). Childhood trauma exposure leads to mental and physical health outcomes that create dependencies and consistent interactions with other systems: increases the prevalence of prescription pain reliever misuse in adults by 28% (Quinn et. al, 2016); and is associated with increased utilization of multiple systems like health, mental health (including substance abuse), child welfare, and juvenile justice (Abram et al., 2004; Felitti et al., 1998; Hawke, Ford, Kaminer, & Burke, 2009; Jaycox, Ebener, Damesk, & Becker, 2004;

Keller, Salazar, & Courtney, 2010; Kisiel, Fehrenbach, Small, & Lyons, 2009; Ko et al., 2008).

The immediate and long-term effects of childhood trauma not only debilitates major aspects of a person's functioning, it is inherently disempowering in of itself. To disempower is "to cause a person or a group of people to be less likely than others to succeed" ("disempower", Merriam, n.d.). As the literature suggests, the lifetime consequences of trauma exposure hinder the success of individuals and groups. Those directly impacted by trauma and anyone dependent upon that person lose opportunities for upward movement and are, therefore, potentially disempowered. Individuals or groups that profit from this disempowered population gain not only the power but also the potential profits of incarcerating, medicating, or controlling this group of people.

Human and civil rights groups have increased advocation of incarcerated populations, as sentencing is unjust when applied to trauma-exposed and vulnerable individuals facing complicated physical and mental health challenges (Maschi, Viola, & Koskinen, 2015). The prison system, pharmaceutical companies and social policy are in a position to profit from and control disempowered populations. Thierry Godard (2015) describes the massive prison system in the United States as a $74 billion industry. Richard Anderson (2014) of BBC News reports that pharmaceutical companies earned a 42% profit margin within its multi-billion dollar industry.

The systems in place are also positioned to potentially take advantage of the vulnerable populations they are charged to serve. In his book, *The Poverty Industry: The Exploitation of America's Vulnerable Citizens,* University of Baltimore law professor Daniel L. Hatcher (2016) writes: "States and their human service agencies are partnering with private companies to form a vast poverty industry, turning America's most vulnerable populations into a source of revenue".

Hatcher (2016) further describes this abuse of power in the realms of social services (i.e. foster care), the medical field (i.e. nursing homes, hospitals that predominantly serve vulnerable populations), and the education system (i.e. schools that serve special education and disabled students). The outcomes of childhood trauma, without intervention, create a population that depend on potentially abusive systems that could profit from their possible disempowerment.

Interventions for Trauma

The prevalence and major consequences of trauma exposure makes intervention urgent for all fields that serve affected populations. The surveillance of ACEs and public health became globally important when, in May 2009, the World Health Organization (WHO) and the National Center for Chronic Disease Prevention and Health Promotion met in Switzerland to initiate a framework for surveying ACEs and health worldwide (Anda, Butchart, Felitti, & Brown, 2010). Since the original ACEs study by Kaiser Permanente, additional ACE studies have been conducted for over a decade in the United States and have incorporated additional adverse experiences not in the initial study (Greeson et al., 2011). These additional studies have continued to confirm that the ramifications of trauma exposure are a "common pathway to a variety of long-term behavioral, health, and social problems" (Brown et al, 2009). It is essential that "organizations, with the input of service users, must modify their values, principles, and culture to ensure that services, practices, and policies are trauma-informed" (Bassuk, Unick, Paquette, & Richard, 2017).

Trauma informed care (TIC) is a strengths based approach that is rooted in an understanding of trauma and responsiveness to trauma (Bassuk et al, 2017). It is also a practice that recognizes the "intersection of trauma with many health and social problems for which people seek services and treatment" (Bowen & Murshid, 2016). Because trauma is impactful

upon the whole person, efforts to integrate trauma-informed integrated care have been made as "services that unite primary care, mental health, families, and communities while also integrating knowledge of the impact of trauma on all aspects of care" (See Appendix B) (Dayton et al, 2016). Across fields efforts to implement TIC have been taken in many settings, some include: hospice and palliative care (Ganzel, 2016); youth residential treatment (American Association of Children's Residential, 2014); child welfare systems (Lang, Campbell, Shanley, Crusto, & Connell, 2016); pediatric medicine (Dayton et al, 2016); and elementary school curriculum (Blitz, Anderson, & Saastamoinen, 2016).

Despite the discussion of TIC, there is little research on how TIC is implemented and viewed by providers within different fields (Donisch, Bray, & Gewirtz, 2016). Much of our knowledge about TIC in literature resides in its definition, key principles, and case examples; gaining the insight of providers on TIC could enrich trainings on this practice and advance understandings of TIC across diverse fields of practice (Donisch, Bray & Gewirtz, 2016). In collaboration with SAMHSA, Ellen L. Bassuk (2017) recognized the need to systematically assess TIC implementation at the organizational level over time. Through her TICOMETER (where TIC stands for trauma informed care and "OMETER" for measuring device), organizations are measured psychometrically and evaluate the level they are implementing TIC at one point in time or repeatedly over time (Bassuk, 2017). Additionally, the tool measures the perception of TIC held by all staff within an organization, that include: administrative, clinical, and executive members (Bassuk, 2017). The general lack of research on provider perceptions of TIC, the focus on defining TIC and discussing case examples, and the quantitative approach of the TICOMETER (Bassuk, 2017) highlights a demand for further research on provider perspectives that incorporates a mixed methods approach and more qualitative data.

ACEs, Trauma and Butte County

In California, 61.7% of adults have an ACEs score of one and one in six have experienced four or more (Stevens, 2014). According to the U.S. Census (2015), in Butte County 70% or more of the population has an ACE score of 1 or more (Stevens, 2014). Butte County, a rural domain in Northern California, contains over 225,000 people with 137.7 people per square mile (U.S. Census, 2015). Approximately 55% of the population have household incomes below $50K with $23,867 per capita income (U.S. Census, 2015). It is estimated that 21.8% of the Butte County's population live below the poverty line, which is 1.4 times the rate statewide and 1.5 times nationwide (U.S. Census, 2015).

According to the Butte County Community Health Assessment (BCCHA) (2015-2017), 58% of participants do not perceive Butte County as a healthy community. Most prevalent concerns were environmental issues, drug and alcohol related issues, homelessness, violence, nutrition and health, and public safety (BCCHA, 2015-2017). An estimated 24.5% of Butte County children under the age of 18 live below the federal poverty level, which is higher than the statewide average of 20.9% (BCCHA, 2015-2017). The most prevalent conditions within the Butte County population are: hypertension (high blood pressure), hyperlipidemia (high cholesterol and triglycerides), diabetes, arthritis, and ischemic heart disease (blocked arteries) (BCCHA, 2015-2017). The most common adult mental health diagnoses made by the Butte County Department of Behavioral Health were mood disorders (i.e. depression) at 30.1%, and substance use disorders at 17.6% (BCCHA, 2015-2017). According to the Child Welfare Services Reports for California (2013), the most commonly reported types of child abuse was

general neglect (67.8%), physical abuse (9.9%), emotional abuse (9.4%), and sexual abuse (9.0%) (as cited in BCCHA, 2015-2017).

Theoretical Bases and Organization

Trauma Theory

In Perry, Pollard, Blakley, Baker, & Vigilante (1995), trauma is described as an experience that transforms lives:

> "It is the human brain that processes and internalizes traumatic (and therapeutic) experiences…mediates all emotional, cognitive, behavioral, social, and physiological functioning...it is the human brain from which the human mind arises and within that mind resides our humanity".

Trauma theory acknowledges the potentially devastating consequences of early exposure to trauma, yet it embraces hope and the possibility of healing from such exposure. As the brain is capable of being affected by trauma, so is it also affected by hope and healing.

Historically, trauma exposure and the human brain were neuroanatomical and psychogenic; exposure to trauma or stressful experiences was a trajectory toward brain abnormality, maladaptive behaviors, mental illness, and distorted perceptions (Farreras, 2017). In *The Body Keeps Score*, Dr. Bessel Van der Kolk (2014) makes the assertion that while trauma cannot be taken away or undone "what can be dealt with are the imprints of the trauma on body, mind, and soul" (p. 205). Incorporating a more holistic approach, the brain that is exposed to trauma is not the sole determinant of well-being; instead, understanding trauma better causes "us to think differently not only about the structure of the mind but also about the process by which it heals" (van der Kolk, p. 14, 2014).

Resiliency Theory

Unger (2008) extends the argument that trauma can be intervened with hope and healing; taking an ecological perspective, the author acknowledges that those tasked to assist in the process of that intervention can do so through building a system that supports a child's realization of his or her potential. It is essential to move away from individualized approaches of intervention, as it can position the child as responsible for their own growth through adaptation (Unger, 2008). Through this more expansive perspective of system involvement Unger (2008) defines resilience:

> 1. First, resilience is the capacity of individuals to navigate their way to resources that sustain well-being;
> 2. Second, resilience is the capacity of individuals' physical and social ecologies to provide these resources; and
> 3. Third, resilience is the capacity of individuals, their families and communities to negotiate culturally meaningful ways for resources to be shared.

The definition of resilience in these terms heavily implies that facilitating healing, and resilience, is a communal effort not solely an individual one. Unger (2008) encapsulates a definition of resilience that "emphasizes the need for individuals to exercise enough personal agency to make their way (navigate) to the many resources they require to meet their developmental needs". This idea places power and responsibility on both the individual and the systems of support that an individual will need to interact with when navigating towards building resilience. Another component of resilience theory is the notion that the study of resilience should be reflexive; resistance of the individual who is building resilience is not necessarily a "disorder" or fault but instead a signal that the service provided is not culturally relevant (Unger, 2008). This places significant responsibility on the services and systems that support individuals seeking help.

Organizational Theory

Dziak (2016) describes organizational theory as "the study of how organizations (groups of people who work toward a shared goal) form, operate, and change". The theory was initial initially developed to offer structure to operations that were not regulated; as theories evolved, more consideration was taken in emphasizing the humanistic importance to organization (Dziak, 2016). Systems theory emerged in the late twentieth century and addressed more current concerns that influence organizations: environment, cultural norms, social changes, new advancements in technology, and the actions initiated by policy in government (Dziak, 2016). By accounting for more complexity, systems theory observes the patterns that emerge when components interact (Lalande & Baumeister, 2014). Through the scope of interactional systems, it can be understood that one subject is not acting solely on its own but instead reliant and shaped by the bigger system (Lalande & Baumeister, 2014). In consideration of the systems that serve trauma exposed populations, it is important to account for the many interactions that occur between individual and systems and the systems themselves.

CHAPTER III

METHODOLOGY

This research utilized a mixed method approach, incorporating both qualitative and quantitative data. There is considerable benefit to a mixed method approach where the researcher obtains both quantitative (close-ended) and qualitative (open-ended) data, then interprets the strengths both sets of data offer in order to understand the problem being researched (Creswell, 2014). As ACEs and efforts to address trauma exposure are complex, diverse, and unique across fields of practice, integrating both types of data offers the best opportunity to understand the problem. The use of a mixed-method design allows for a multi-dimensional approach in the participants' responses, which is a compelling reason to use when researching in the social sciences as it combines the objective aims of quantitative data and subjective of qualitative (Rubin & Babbie, 2013).

Rubin and Babbie (2013) describe different styles of mixed methods approaches, this research uses the benefits of qualitative research methods to evoke the "deeper meanings of particular human experiences...not easily reduced to numbers" (p. 46). The use of qualitative methods is helpful in understanding personal and unique responses in questions that relate to participants' perspectives and observations in their fields. Quantitative methods "seek to generalize precise and objective findings to a larger population" (Rubin & Babbie, 2013, p. 46), which is useful in understanding awareness of ACEs and trauma informed practices of the

population working in Butte County. In an effort to best organize the research, and strive for quality data, the seven phases described by Rubin and Babbie (2013) that outline research taking a mixed method approach were utilized: problem formulation, designing the study, data collection, data processing, data analysis, interpreting the findings, and finally writing the research report.

Research Design

Following the formulation of the research problem, research questions were drafted (Appendix D). A hypothesis was not developed until after the surveys were administered, however, the researcher did have an informal hypothesis about how the results would materialize. In the next phase of the study, study design, it was determined that the design would entail recruitment of survey participants, administering the surveys, and then analyzing the data. The surveys were intended for Butte County providers working in the medical, education, and social services fields. To best advertise the survey, fliers were drafted and delivered to multiple school, medical, and social services sites in Butte County. Acknowledging that the survey link was online, attachments of the flier and link were included through email to encourage mass distribution. Recognizing that participants in these fields are performing potentially time-consuming work, efforts were taken to keep the survey concise and brief.

Prior to administering the surveys, a Human Subjects in Research application was submitted to the Human Subjects and Animal Care department at the Office of Graduate Studies at California State University, Chico. The application was accepted and approved for research on October 11, 2016. Survey participants were made aware that their participation was completely voluntary, confidential, and participation could cease at any point according to their discretion. Questions in the survey instrument were carefully written as not to illicit any personal

experiences with trauma or revealing private information.

Selection of Survey Participants

The target population of this study was professionals in Butte County working in the medical, education, and social services fields. Survey participants were selected through a convenience sample who were willing to voluntarily participate in an online Qualtrics survey. Recruitment of participants took place through accessing list serves of providers in the medical, educational, and social services fields through frequently attending a local ACEs coalition meeting, regularly attending clinician meetings at a campus student health clinic, and local school district staff meetings. Additional survey participants in the education field were sought on a Facebook page for the local California Educator's Employee union. All participants who were emailed were encouraged and given permission to share the active survey link with other providers that fit the qualifications for participation.

Instrumentation

The mixed methods survey for Butte County providers was comprised of sixteen questions and was distributed through Qualtrics software (Qualtrics, Provo, UT) as an online survey. The survey included seven demographic questions. The additional 10 questions were comprised of multiple choice, multiple response, closed and open response (allowing for both quantitative and qualitative data), sliding scale, with the last question being qualitative. Survey questions twelve and thirteen, inquiring about knowledge of TIP, were constructed through using the approaches and values outlined in SAMHSA's definition of TIP (SAMHSA, 2015) (see Appendix E). Three separate surveys were administered based on field of service: medical, education, and social services. The surveys were identical save for terminology specific to each field: patient (medical), student (education), and social services (client).

In an effort to not explicitly state the term TIP, the approaches and values of the practice were components of the questions rather than blatantly asking participants if they were implementing TIP. In the best efforts to retain the attention of participants while they were taking the survey, awareness of ACEs was a question left at the end of the survey. It was determined that a negative response to that question might dismiss participants early in their survey response. In an effort to keep the survey brief, questions were selected carefully and efforts were taken to minimize the number of questions. The Qualtrics survey program estimated that the response time for participants would be 3-5 minutes.

Data Analysis

Rubin and Babbie (2013) describe phase four and five of research design as processing and analyzing the data. Quantitative data were processed using descriptive statistics to define and interpret the population of Butte County service providers who participated in the survey. Initially, the survey was administered through three field specific instruments that were identical except for consumer terminology. At the close of data collection, the results were consolidated as participants utilizing the survey from one field would respond that they work in another field (i.e. a participant using the social services survey link would select "education" as their field of practice). Statistical data was derived from running survey results through the Statistical Package for the Social Sciences version 22.0 (SPSS, Inc., 2013).

Analyzing the data through SPSS was achieved through converting the data from the Qualtrics program over to SPSS. Following the conversion, the data was "screened and cleaned". The demographic questionnaire about professional preparation (job title) had to be coded and sorted into dominant groups. The data then went through statistical analysis and descriptive statistics to isolate demographic information of the participants. It was determined that question

number twelve and thirteen (see Appendix C) needed to be rescaled to best represent knowledge of trauma informed practices. The variable of time was calibrated to represent knowledge through the following scale:

0	No Understanding
25	Some Understanding
50	Moderate Understanding
75	More than some understanding
100	Complete Understanding

A one-way analysis of variance (ANOVA) was performed to measure variability between the two different variable groupings: field of service versus knowledge of trauma informed approaches, as measured by definition of trauma informed practices. The same ANOVA procedure was undertaken to understand variance between field of service and knowledge of trauma informed values.

Limitations

While best efforts were made to maximize the quality of the research, there were a number of limitations within this study that may have presented some concerns with validity. Limitations will be discussed through the following themes: survey, sample, time, field differences and breadth of services, and potential fears of participants.

Survey

Collecting data through a survey can carry particular limitations. While it is beneficial in its ease of use and for it's potential to reach large groups of people (through sharing online links), there are many ways an online survey approach can retrieve less or poor data (Coughlan, Cronin, & Ryan, 2009). Many of the survey links were sent out broadly to local agencies that may have software that protects privacy and security; it is possible many emails with the survey invitation were sent to 'spam' filters (Coughlan, Cronin, & Ryan, 2009). Aside from some emails

potentially never being opened, it should also be considered that email distribution can be viewed as impersonal which may lead to participants losing interest or not seeing the relevance of the research.

Formulating research questions that accurately verbalize information to illicit a viable response that also addresses the larger research problem is critical. It is suggested that when formulating a research question, researchers need to address factors that influence responses to the question (Hallberg, 2008). As this study incorporated three unique fields through an instrument with identical questions, variables or factors that are distinct in each field may not have been properly addressed in the survey question. Ultimately, for a variety of reasons, participants may leave questions unanswered which can lower statistical validity through smaller sample size.

Adjustments to variable terminology had to be made to survey questions twelve and thirteen. To best measure understanding of ACEs and TIP, it was determined that percentage of time implementing approaches and values of TIP would measure understanding. This adjustment in terminology has obvious implications for validity as it is using different variable measurements than initially intended at the time participants were invited to the survey. In addition to having to recalibrate variables, the sample size for these two questions were greatly reduced compared to other questions. The descriptive statistics for this revealed that 57 participants did not complete these two questions which greatly impacted the results.

Sample

The sample size, while statistically valid as a whole, is not substantial to represent each field alone: medical and educational fields in particular. Data was affected by whether participants answered all the questions on the survey or not. Using a convenience sample also

yielded some limitations. This style of sampling can potentially result in the under-representation or overrepresentation of certain groups within the sample ("Convenience Sampling", 2012). Another limitation is not knowing the intentions of the survey participants; it is impossible to know the experience, history, biases, and motivations the participants bring with them when they participate in the survey ("Convenience Sampling", 2012).

Time

While participants had open access to a convenient online survey link, the timing that this survey was administered created some challenges. For those in the education field, the survey was available alongside their winter break, which provided a short time frame to gather data from this field as educational professionals were not at work.

Lack of time in general was a major limitation. Drafting the survey, advertising, and administering the survey were all implemented in a short span of time. If there had been more time more attention could be designated to research design, quality of the survey questions, marketing and advertising, and a longer data collection period could have been considered.

Field Differences and Breadth of Services

Cultural and environmental differences between fields were another potential limitation, as provider perception of TIP can vary amongst the different fields and within different roles and positions. How TIP is implemented across settings could be perceived differently: this could vary by field, setting, and role of provider. As the demographic results convey, job titles and professional preparation varied between fields. The appropriation of power and experience between roles in each field could influence how TIP is perceived and administered. Another factor is whether providers had equitable access to emails. Depending on different positions within their respective fields, some participants may have more access to computers and email

than others and also have more time to fill out a survey.

Potential Fears of Participants

Provider fear of revealing inadequacies was another potential limitation that may have hindered participation in the study. A career in human services is inherently difficult work, it can be assumed that providers employ this work to best serve the consumers they provide services for. It is possible that filling out a survey that draws attention to a lack of service can be inhibiting to participants. Additionally, this study measures awareness of a subject at the point of survey completion. Awareness is constantly changing and can be an ambiguous variable to measure.

CHAPTER IV

FINDINGS AND RESULTS

Analyzing the results of this study is organized into two stages: addressing the quantitative data which includes participant demographics, one way analysis of variance (ANOVA), cross tabulation and utilizing descriptive statistics. The second stage involves coding and grouping the qualitative data derived from the final question on the survey instrument. Following coding and grouping, the responses were categorized into major themes.

Quantitative

Table I
Participant Demographics: Gender

Variable	Frequency	Percentage
Male	31	18.6
Female	130	77.8
Prefer Not to Say	3	1.8
Total	164	98.2

Note. N=167, n=164. Three participants did not complete the gender question of the survey.

Table I illustrates female participation was most prevalent at 77.8%, with male participation at 18.6%. Three survey participants did not complete the gender question of the survey.

Table II
Participant Demographics: Age

Variable	Frequency	Percentage %
18-24	2	1.2
25-34	40	24
35-44	52	31.1
45-54	36	21.6
55-64	27	16.2
65-74	7	4.2
75+	0	0
Total	164	98.3

Note. N=167, n=98.3, Three participants did not answer the age question on the survey.

Table II illustrates that survey participants were most likely to be in the 35-44 age group (31.1%). Most participants fell between the ages of 25-64 years old (92.9%). Three participants did not answer the age question on the survey.

Table III
Participant Demographics: County

Variable	Frequency	Percentage %
Butte County	138	82.6
Other	25	15
Total	163	97.6

Table III illustrates that 82.6% of survey participants work in Butte County, 15% of survey participants work outside of Butte County. Four participants did not answer the survey question.

Table IV
Participant Demographics: Field of Study/Professional Preparation

Variable	Frequency	Percentage %
Medical=Doctor	2	1.2
Medical=Nurse/RN/LVN/CNA	5	3
Medical=PA/NP	0	0
Medical=Other	2	1.2
Social Services=Social Worker/MSW/LCSW	15	9
Social Services=Therapist/LMFT/MFT/ Counselor/Clinician	31	18.6
Social Services=Mental Health	4	2.4
Social Services=Program Director/Coordinator/ Supervisor/Manager	39	23.4
Social Services=Other	9	5.4
Education=Teacher	23	13.8
Education=Instructional Aide/Instruc.Para./ IPS/Paraprofessional	13	7.8
Education=Other	18	10.8
Total	161	

Table IV illustrates participants are most represented in the social services field (58.8%). The next most represented field was education (32.4%) and the least was medical (5.4%). The three most common professional preparations of the participants were: 1) Social Services- Program Director/Coordinator/Supervisor/Manager (23.4%), 2) Social Services-Therapist/LMFT/MFT/Counselor/Clinician (18.6%), and 3) Education- Teacher(13.8%). Three participants did not complete this survey question.

Table V: Descriptives for ANOVA-Field of Service and Knowledge of Trauma Informed Approaches

Variables	N	Mean	Standard Deviation
Medical	14	2.93	1.492
Social Services	59	3.73	1.064
Education	34	2.71	1.088
Total	107		

Note: 57 survey participants did not complete this survey question.

Table V illustrates that participants in the social services field had the highest number of responses for this question (55%), followed by participants in the education field (32%), and medical with the least participants (13%).

Table VI: One way analysis of variance (ANOVA): Field of service and knowledge of trauma informed approaches.

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	24.781	2	12.391	9.642	.000
Within Groups	133.648	104	1.285		
Total	158.430	106			

Note: Calculating the effect size: 24.781/158.430=.156

Table VI illustrates the one-way between-groups analysis of variance that was conducted to explore the impact of field of service on knowledge of trauma informed approaches, as measured by definition of trauma informed practices. Participants were divided into three groups according to their field of service (Group 1: Medical; Group 2: Social Services; Group 3: Education). There was a statistically significant difference at the $p < .05$ level in knowledge of trauma informed approaches for the three fields: F (2, 104)=9.6, p=.00. Despite reaching statistical significance, the actual difference in mean scores between the groups was quite small. The effect size, calculated using eta squared, was .156. Post-hoc comparisons using the Tukey HSD test indicated that the mean score for Group 2 (M=3.73, SD=1.06) was significantly different from

both Group 1(M=2.93, SD=1.49) and Group 3 (M=2.71 , SD= 1.09).

Table VII: Descriptives for ANOVA-Field of Service and Knowledge of Trauma Informed Values

Variables	N	Mean	Standard Deviation
Medical	19	4.26	1.284
Social Services	81	4.47	.760
Education	34	4.31	.787
Total	151	4.39	.848

Note: 13 survey participants did not complete this survey question.

In Table VII, a one-way between-groups analysis of variance was conducted to explore the impact of field of service on knowledge of trauma informed values, as outlined in the definition of trauma informed practice. Participants were divided into three groups according to their field of service (Group 1: Medical, Group 2: Social Services, Group 3: Education). There was not a statistically significant difference at the $p < .05$ level in knowledge of trauma informed values for the three field of service groups. There were significantly more participants (92%) that answered this question in comparison to the previous question measuring approaches.

Table VIII: *How much of an impact do you believe childhood trauma plays in the health and well-being of your clients?*

Field of Service	A great deal	A lot	A moderate amount	A little	Total	Percentage
Medical	16	4	0	0	20	80
Social Services	76	5	2	1	84	90.5
Education	44	9	2	1	56	78.6
Total	136	18	4	2	160	

Note. Missing cases=7

Table VIII indicates that the majority of participants (85%) believe trauma plays "a great deal" of impact on the health and well-being of their clients. Social services had the highest percentage (90.5%) of participants believing trauma plays a great deal with medical second (80%) and education (78.6%) last.

Table IX: *How familiar are you with the Adverse Childhood Experience (ACE) Study?*

Field of Service	Extremely familiar	Very Familiar	Moderately Familiar	Slightly Familiar	Not Familiar at all
Medical	6	0	2	6	5
Social Services	12	27	17	14	14
Education	14	8	16	4	14
Total	32	35	35	24	33

Note. Missing cases=5

Table IX indicates that the majority of participants (64%) are at least moderately familiar with ACEs or more. Participants were nearly evenly distributed between the five levels of awareness.

Qualitative

Recurring themes were evident from the qualitative data questions in the survey instrument. After coding and grouping responses, specific overarching themes became apparent. The first qualitative question, number fourteen, allowed participants to express additional barriers to implementing TIP practices and values that they perceive in their organization. The 'other' option extended from a list of other barrier options. There were no additional responses from the medical field, two responses from the

education field, and twelve from social services. It was determined that the qualitative responses for this question were not substantial enough to report.

Table X: *Please share any comments regarding information, training, or policies that would support further integration of trauma focused approaches in your setting.*

	Total Responses	Trainings/Education	Work Culture	Org/Sys.Change
Social Services	19	10	4	5
Medical	2	2	0	0
Education	7	1	4	2
Total	28	13	8	7

Note. It was determined that 4 responses did not properly address the question. Some responses related to multiple themes due to the length of the response.

Survey question 17 asks participants to comment on any information, training or policies that would support further integrating TIP in their setting (see Appendix C). There were responses to this question from all three fields (See Table X).

After completing a content analysis, recurring content emerged and the responses were organized into three groups: trainings and education, work culture, and organizational and systemic change.

Themes

Trainings and Education

Responses that were grouped into "trainings and education" contained content that mentioned sites and/or practitioners that needed more training. Across the three fields, this theme was most mentioned. Examples of responses include:

<u>Social Services</u>

"More trainings on trauma are needed".
"More trainings for sure are needed".
"Trauma focused training for all employees".

<u>Medical</u>
"Just more training in general would be helpful".
"Succinct training module for all level of staff to introduce ACEs and trauma-approached care".

Education

"There has to be more training in regards to guiding/helping our families with support like home visits".

Work Culture

Responses that were grouped into "Work Culture" contained content that mentioned more need for better morale, collaboration, retention, decreased turnover, and development of more positions. The social service and education fields had responses that fell under this theme:

Social Service

"Need for less changes in providers".
"Increasing morale within the Agency to lessen turnover of social workers".
"The most concerning to me is the lack of interest and training in some programs".

Education

"Having a social worker on staff or an art therapist [would offer more support]".
"I would love to see a play therapist embedded in all early education programs but especially the preschool population. Also, I think on-going collaboration with experts who can "case manage" and support students and their service providers in order to maintain an effective, safe, and therapeutic environment."

Organizational and Systemic Change

Responses that were grouped into "Organizational and Systemic Change" contained content that mentioned changes to the bigger system, or between organizations. Social services and education fields had responses that qualified under this theme:

Social Services

"Family approaches, and Butte County needs better collaborative efforts with frontline workers in the child welfare system and mental health system to better serve clients and their families".
"Due to my work setting in inpatient psychiatry, we are very aware of client's trauma history and how it has effected and continues to affect their lives. However, it would be very helpful if more agencies that continued to offer support to these clientele were also aware of the impact of childhood trauma".
"I think that gathering information regarding specific examples from a variety of provider sample would be helpful in identifying areas that can be most problematic for integration of trauma focused care into our systems of care".

Education

"Trauma focused approaches can fit perfectly into a school's continuum of behavioral support. In order for it to be maximally effective, however, that system needs to be high functioning".

CHAPTER V

DISCUSSION

Quantitative Data

The demographic results on gender, with 77.8% female participants, are comparable to national averages that those in the "helping professions" are predominantly women (Gibelman, 2003). The Bureau of Labor Statistics reports that women comprise 81.5% of the social services profession in the United States; 73.1% of all education professions; and 75.6% of all positions in healthcare occupations (2016). An additional cross-tabulation was performed to illustrate gender and the different fields of practice.

Table XI: *Cross-tabulation between gender and field of practice.*

	Total Responses	Male	Female	Prefer not to Say
Medical	20	5	15	0
Social Services	84	14	69	1
Education	56	12	42	2
Total	160	31	126	3

Note. It was determined that 4 respondents did not answer this survey question.

Table XI supports the previously mentioned national averages of gender distribution across these fields. Again female participants are dominant in all three fields.

The demographic results on age of the participants, predominantly between 25-64 years old, coincides with national age statistics of the labor force: nationally those aged 25-54 comprise 80.9% of the labor force, those 65 and older comprise 18.6% (Bureau of Labor Statistics, 2016). According to the demographic data recorded for this study, there is a sharp decline in participants aged 65 and older (4.2%), which coincided with nationwide statistics that those 65 and older represent 18.6% of the labor force (Bureau of Labor Statistics, 2016) and the average retirement age is 64 years old in California (U.S. Census Bureau, 2016).

One-Way Analysis of Variance (ANOVA)

The one-way ANOVA test revealed that Group 2 (Social Services) scored higher in knowledge of trauma informed approaches, as defined in trauma informed practices. The mean for social services participants was 3.73, which indicated that their level of understanding was between "some understanding" and "more than some understanding" (See Table XII below). Medical (M=2.93) and Education (M=2.71) scored between "less than some understanding" and "some understanding".

Table XII: Scale of Provider Understanding

0	No Understanding
25	Some Understanding
50	Moderate Understanding
75	More than some understanding
100	Complete Understanding

While the one-way ANOVA test was not statistically valid, it did suggest that all participants in

all fields have more than some understanding of trauma informed values. Each field scored between 4-4.5 on the mean, indicating that their level of understanding was "more than some understanding".

The cross-tabulation performed in Table XI, on the relationship between field of service and providers' perception of the impact of trauma in the lives of their clients, revealed that the majority of providers in all fields believe trauma carries "a great deal" of impact. The high percentage of social services providers that rated trauma's impact "a great deal" (90.5%), may reflect on the scope of practice within this field. Nancy Smyth, PhD, LCSW, dean of and a professor in the University at Buffalo School of Social Work in New York, says "social work by its very definition has always meant working with vulnerable patients and those who have experienced trauma" (Getz, 2013, p. #). The medical and education fields, however, also rated trauma as having "a great deal" of impact with medical at 80% and education at 78.6%. As the medical field has become more aware of the health outcomes of trauma, more efforts have been made to educate many types of practitioners about trauma informed practices including nurses (Kezelman, 2017); pediatricians (Burke Harris, 2014); dentists (Raja et al., 2014); and gerontologists (Ganzel, 2016). As school systems are becoming more knowledgeable about trauma, there is more of an understanding that "teachers and classroom aides are in an optimal position to teach coping skills, help build resilience, model emotional processing and problem solving, and establish psychological safety" (Baum, Rotter, Reidler, & Brom, 2009). This understanding is evidenced by the growing number of schools implementing trauma informed practices within their curriculum and settings (Baum, et al., 2009; Blitz, Anderson, & Saastamoinen, 2016). The high percentage of practitioners recognizing the impact of trauma may coincide with the growing efforts to address trauma in so many diverse settings.

Qualitative Data

The theme of "trainings and education" had the most content as it comprised 46% of provider responses from all three fields. The number of participants requesting more training and education of trauma interventions could reflect on the potentially inconsistent or non-existent training curricula available to them; Mattar (2011), describes "there are currently no recognized competencies established that could provide a cohesive theoretical framework for training programs and curricula alike, nor are there clear cultural competencies training practices and standards in trauma education and research". This issue also extends to the next theme of "organizational and systemic change", as there is evidence in the literature that organizational structures and cultures that support cultural competence need promotion (Mattar, 2011). As providers majoritively perceive trauma as a major influence in their client's lives, they also describe working within systems and organizations that need to change.

The final theme of "work culture" supports literature addressing resistance to change in work settings, as "organizations are permanently facing the need to implement various changes regarding their strategy, structure, processes or culture" (Grama & Todericiu, 2017, p. #). A new ideology, such as the implementation of trauma informed practices, could be seen as an innovation, where it is an: "intentional introduction and application within a role, group, or organization, of ideas, processes, products or procedures, new to the relevant unit of adoption, designed to significantly benefit the individual, the group, or wider society"(West, 1990). Integrating innovative approaches promotes a process of change, shifting the way people are asked to work, organize work, and can shift power relations in work settings (Nilsen et al., 2016). Attempts at organizational change often fail because of management lack of focus or insecurity, lack of project management in the system, or implementation that is too slow (Nilsen

et al., 2016). The relationship between the three themes of "trainings and education", "organizational and systemic change", and "work culture" all revolve around what the data from this study has presented: providers are aware of the trauma exposure in the people they provide services to; there are different levels of understanding trauma informed approaches across different fields; and providers are asking for more knowledge and integration of TIP in their diverse settings.

CHAPTER VI

CONCLUSION AND RECOMMENDATIONS

Conclusion

The purpose of this study was to gain a better understanding of how medical, education, and social services providers in Butte County understand and address trauma in their respective fields; in addition, the study allowed providers to express their perceptions of the barriers to and recommendations for implementing TIP in their settings. The results suggest that the majority of providers in Butte County are aware of the impact trauma has upon the lives of those they serve; that there are different understanding of TIP across the three fields of service; and that providers are desiring more knowledge and skills to implement trauma informed interventions.

The quantitative data illustrated a work force, in all three fields, that is predominantly female and between the ages of 25-64 years old with the largest group being female between the ages of 35-44 years old (see Figure II). Providers between the ages of 25-44 years old comprise 55.1% of survey participants, indicating that those who took interest in this survey are in the early stages of their years in the labor force. The most represented field was social services and the most prevalent positions were those working as directors, coordinators, supervisors, or managers (23.4%).

The majority of providers (85%) all recognized that trauma carries “a great deal” of impact on the lives of their clients, patients, or students. Providers familiarity of the ACE study was evenly distributed on a scale of “not familiar at all” to “extremely familiar”. The majority of survey participants expressed that they were “moderately familiar” with the ACE study or more (up to “extremely familiar”).

When analyzing the relationship between field of service and knowledge of trauma informed approaches, a statistically significant difference was found that revealed the social services field scored between “some understanding” and “more than some understanding” of approaches in TIP. Medical and education fields scored between “less than some understanding” and “some understanding”.

Recommendations

The qualitative data revealed recurring themes in the content of provider responses. When asked to share comments regarding information, training or policies that would support further integration of trauma-focused approaches within their settings, providers offered diverse perspectives. The themes of organizational and systemic change, work culture, and training and education all offered important and unique approaches in viewing how TIP can be integrated and what needs are present within each field. The knowledge imparted through this qualitative response suggests a need for further, more expansive research in Butte County through focus groups at multiple settings. The data from this study points to a significant level of provider awareness of the impact of trauma and the ACE study, and an expressed interest in TIP and perceived barriers to implementing TIP in their settings. These factors suggest that further understanding and perspective is needed to address the individual, group, and systemic attitudes about TIP and where change is required.

A second recommendation would be to support organizations and agencies who serve people in the medical, education, and social services fields by forming committees that can oversee and develop trauma informed programs tailored to the needs of individual settings. The content shared in the qualitative responses signify need for organization, direction, leadership and change. Work sites that face high turnover rates of staff, exposure to emotionally difficult

work, and high caseloads (class sizes, patient to staff ratios, etc.) might be unable to meet the challenging task of implementing a new practice in their setting. A trauma-informed method like the Sanctuary Model, a “method for creating or changing an organizational culture”, can address system change in environments that serve a range of treatment organizations (Bloom & Yanosy, 2008). The Sanctuary Model recognizes that organizations encounter many factors that can initiate unfavorable consequences that affect the quality of work delivered (Bloom & Yanosy, 2008); committees or groups organizing trauma informed approaches in various work settings should implement this understanding in their planning:

> Organizations committed to working with troubled individuals all face enormous stresses. Unfavorable financial, regulatory, social, and political environments can adversely impact organizational functioning and, under these circumstances, it is relatively easy to lose sight of the mission, goals, and values that should guide the work. Over time, stressed systems can become reactive, change-resistant, hierarchical, coercive, and punitive. Traumatized organizations may begin to exhibit symptoms of collective trauma similar to those of their clients, creating a "trauma-organized culture." (Bloom & Yanosy, 2008).

Another recommendation would be to reevaluate the curriculum for those educating bodies who are offering programs that lead to careers in medical, education, and social service professions. For example, at a local level, the current requirements in the teaching credential program (for a multiple subject credential) at California State University, Chico does not require coursework on trauma (“Multiple Subject Course Sequence”, 2016); nor does the registered nursing (BSN) program at California State University, Chico (“Program Requirements”, 2016); the graduate program in social work offers an elective course on trauma, but it is not a program

requirement (“Social Work Course Offerings”, 2016).

Implications for Social Work

The lifetime consequences of early trauma exposure are something social workers will encounter when serving clients, no matter the setting or location. The likelihood of serving trauma exposed populations means that critical steps must be taken to best serve people requiring medical assistance, social services, and receiving an education. Research presented in this study has indicated that trauma is pervasive and can permeate generations, the necessity for better curricula that incorporates education about trauma and interventions is particularly crucial for social workers entering graduate programs. Adopting the strategy of the National Center for Social Work Trauma Education and Workforce Development (the National Center), where community-based agencies provide evidence-based trauma treatment [EBTT] (Getz, 2013). This approach acknowledges the changing and expansive understandings of trauma that have developed out of “the broader context of trauma… [including] many overarching themes that exist no matter what type of trauma occurred” (Getz, 2013, p. #). Moving away from categorical curriculum (courses on domestic violence or child abuse, for example) is an objective of EBTT, where trauma is viewed as a phenomenon rooted in “common characteristics across events” (Getz, 2013, p. #). This developed out of addressing the need that social workers need to be equipped to respond to many different types of trauma (post disaster work for example) than just abuse or neglect (Getz, 2013). This approach acknowledges the many different positions social workers occupy that extend beyond child abuse and domestic violence (Getz, 2013).

Ensuring newly graduated social workers have had education on trauma and intervention practices will potentially help prepare them to insist that organizations are trauma informed, and

also become leaders who will implement trauma informed interventions in their own practice. The Sanctuary Model, for instance, recognizes the importance of involved leadership when helping vulnerable populations (Bloom & Yanosy, 2008). The model has steps that encourage staff members in organizations to address not only the strengths, vulnerabilities, and conflicts of the organization but also: shared assumptions, goals, current practices being implemented, and staff perception of change and organizational functioning (Bloom & Yanosy, 2008). This approach encourages system change through involving the workers in the change, and validating the worker's knowledge of the organization.

Another critical component of social work programs becoming more trauma literate is considering the social worker who is exposed to working with vulnerable populations; additionally, considering the childhood experiences of the social worker entering into this type of work. Studies have found correlations between field of practice and childhood experiences, where researchers have "identified childhood experiences in the family of origin as significant factors in the choice of a career in the helping professions" (Black, Jeffreys, & Hartley, 1993, p. #). Susan A. Green, LCSW, and Co-Director of the University of Buffalo's Institute on Trauma and Trauma-Informed Care says "As providers, we are spending more time thinking about being trauma sensitive, trauma specific, and trauma informed and forgetting the fact that trauma impacts all of us, making self-care truly critical" (Getz, 2013, p. #). Social work programs all over the United States are starting to incorporate education on self-care, the act of processing the exposure to potentially traumatizing work, within their trauma curriculum (Getz, 2013). Integrating education on self-care within trauma curriculum would prepare more generations of social workers to navigate working with trauma-exposed populations while also considering their own health and well-being in the process.

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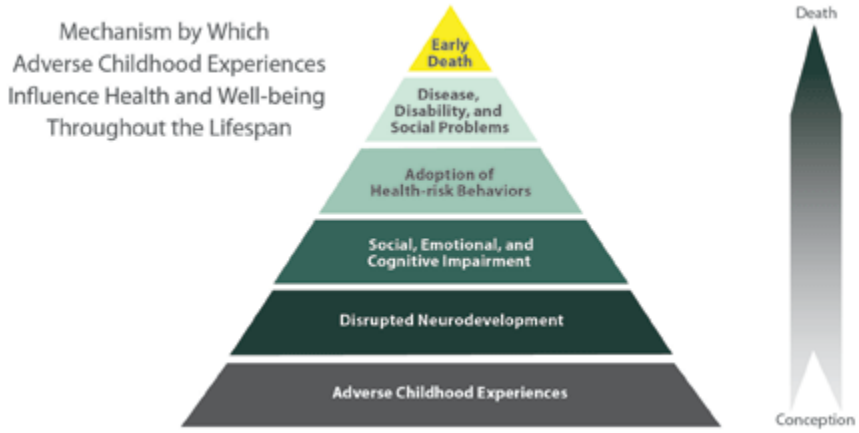
APPENDIX A

ACEs Pyramid



From https://www.cdc.gov/violenceprevention/acestudy/about.html

APPENDIX B

Trauma-Informed Integrated Care

From Dayton et al, 2016: Trauma Informed Integrated Care

APPENDIX C

Survey Instrument

*All three surveys (medical/social services/education) are identical, the only difference is vocabulary describing the consumer of services (patient/client/student).

Trauma Survey - Social Services

Q2 Do you practice in Butte County?

- Yes (1)
- No (2)

Q3 What city do you practice in?

Q4 Field of Service:

- Medical (1)
- Social Services (2)
- Education (3)

Q5 What is your position?

Q6 Gender:

- Male (1)
- Female (2)
- Prefer Not to Say (3)
- Prefer to Self Describe (please specify) (4) _____

Q7 Age:

- 18-24 years old (1)
- 25-34 years old (2)
- 35-44 years old (3)
- 45-54 years old (4)
- 55-64 years old (5)
- 65-74 years old (6)
- 75 years or older (7)

Q8 Considering the population you serve, what are the top 3 traumatic childhood experiences your clients encounter according to your observations? Please check most relevant boxes below:

- Physical neglect (1)
- Emotional neglect (2)
- Medical and dental neglect (3)
- Educational neglect (4)
- Inadequate supervision (5)

- Exposure to violent environments (6)
- Physical abuse (7)
- Sexual abuse (8)
- Psychological abuse (9)
- Other (10) _____

Q9 Do you inquire about your client's past history of childhood traumas within their family of origin?

- Yes (1)
- No (2)
- Sometimes (3)

Q10 If yes, do you document your client's history of childhood traumas within their family of origin?

- Yes (1)
- No (2)
- Sometimes (3)

Q11 How much of an impact do you believe childhood trauma plays in the health and well-being of your clients?

- A great deal (1)
- A lot (2)
- A moderate amount (3)
- A little (4)
- None at all (5)

Q12 What percentage of the time do you incorporate the following approaches in your practice with clients:

- _____ Complete a comprehensive assessment to understand a client's history of trauma exposure. (1)
- _____ Understand potential paths for recovery through integrating biological, psychological, social, and spiritual needs within the treatment plan. (2)
- _____ Train staff to recognize signs and symptoms of trauma, its impact, and strategies for trauma informed approaches. (3)
- _____ Create agency policies and procedures that include a focus on trauma, client safety and confidentiality. (4)
- _____ Seek to actively resist re-traumatizing with increased awareness of invasive practices, lack of privacy, personal touch or personal questions that may be embarrassing or distressful to the client. (5)

Q13 What percentage of the time do you incorporate the following values in your practice with clients:

- _____ Safety-ensuring physical and emotional safety (1)
- _____ Trustworthiness- maintaining appropriate boundaries and making tasks clear (2)
- _____ Choice- provider prioritizes client's ability to make choices (3)
- _____ Collaboration- maximizing communication between client and other providers (4)
- _____ Empowerment- prioritizing client empowerment and skill-building (5)

Q14 What barriers, if any, prevent your organization from implementing the practices and values mentioned above? Check all that apply and please include further details.

- No barriers (1)
- Financial reasons (please explain) (2) _____
- Lack of interest (please explain) (3) _____
- Lack of leadership and/or support (please explain) (4) _____
- Resistance or skepticism (please explain) (5) _____
- Lack of systemic resources (please explain) (6) _____
- Uncertain roles (please explain) (7) _____
- Other (please specify) (8) _____

Q15 In comparison to other counties in California do you believe residents of Butte County have a higher incidence of childhood trauma?

- Yes (1)
- No (2)
- Not Sure (3)

Q16 How familiar are you with the Adverse Childhood Experience (ACE) Study?

- Extremely familiar (1)
- Very familiar (2)
- Moderately familiar (3)
- Slightly familiar (4)
- Not familiar at all (5)

Q17 Please share any comments regarding information, training or policies that would support further integration of trauma focused approaches in your setting.

APPENDIX D

Research Questions

1. Is there a relationship between understandings of ACES/trauma informed practices and different fields of practice?

2. How do providers' perceive the influence of trauma on the clients they serve in their respective field?

3. Are providers using trauma-informed approaches across different settings, if so how frequently?

4. What are providers' perceived barriers to implementing trauma informed practices?

5. What do providers' want/need to further understand trauma and interventions in their work setting?

APPENDIX E

Trauma Informed Practice-Approaches and Values

“A program, organization, or system that is trauma-informed:

1. *Realizes* the widespread impact of trauma and understands potential paths for recovery;
2. *Recognizes* the signs and symptoms of trauma in clients, families, staff, and others involved with the system;
3. *Responds* by fully integrating knowledge about trauma into policies, procedures, and practices; and
4. Seeks to actively resist *re-traumatization*."

These principles may be generalizable across multiple types of settings, although terminology and application may be setting- or sector-specific:

1. Safety
2. Trustworthiness and Transparency
3. Peer support
4. Collaboration and mutuality
5. Empowerment, voice and choice
6. Cultural, Historical, and Gender Issues

From: SAMHSA, https://www.samhsa.gov/nctic/trauma-interventions