Increasing the Awareness of Trauma Informed Care in the School Setting: Giving Practitioners the Tools to Actively Participate in Trauma Related Care

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Increasing the Awareness of Trauma Informed Care in the School Setting: Giving Practitioners the Tools to Actively Participate in Trauma Related Care

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Abstract

Of the approximately 15 million children and adolescents who have a mental health disorders that are interfering with their functioning, a mere 25% seek medical advice or treatment (Melnyk, Kelly, & Lusk, 2014). Furthermore, two thirds of youth report experience at least one traumatic event by age 16 (Suarez, Belcher, Briggs, & Titus, 2012). School health practitioners have regular contact with children and adolescents as they typically attend school five days a week, nine months out of the year. The consistent presence of the relationship between the practitioner and student creates an ideal environment for discussing the sensitive topics necessary to engage in trauma informed care modalities. The goal of this project was to increase the awareness of trauma-informed definitions, techniques and resources for nurses in the school setting. The Sonoma County School Nurse Association partnered with a University of San Francisco (USF) Doctor of Nursing Practice (DNP) student to receive a two-hour presentation about trauma and its associated interventions. Participating school nurses subsequently received an evidenced-based module that reinforces the recognition and effective resource management for trauma informed care, in order to reduce the risk of trauma on the growth, development, and success of adolescents. Motivational Interviewing (MI) was used as the primary intervention reviewed for practitioners to implement into their own practices. Play therapy and cognitive restructuring were also presented to the 13 school nurses in attendance. Data was collected immediately before and after the presentation as well as six-weeks later. In both data sets, participating nurses noted an increase in their confidence but did not report a significant utilization of motivational interviewing, play therapy, or cognitive restructuring. A lack of appropriate clinical scenarios was cited most frequently as the reason for not utilizing the presented techniques.
Keywords: Trauma, School, Motivational Interviewing, Play Therapy, Cognitive Restructuring

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Introduction

Background Knowledge

Literature strongly suggests that exposure to adverse childhood experiences (ACEs) disrupts normal childhood development and predisposes individuals to mental and physical health disorders in their adulthood (Carrion & Hull, 2009; Garland, Pettus-Davis, & Howard, 2013; Mitchell & O’Connor, 2013, Smith & Saldana, 2013; Waite, Gerrity, & Arango, 2010). An ACE is a “stressful or traumatic experience, including abuse, neglect and a range of household dysfunction such as witnessing domestic violence, or growing up with substance abuse, mental illness, parental discord, or crime in the home” (Substance Abuse and Mental Health Services Administration (SAMHSA), n.d., n.p.). Populations who have experienced multiple traumas are at a higher risk for depression, tobacco use, alcoholism, illicit drug use, attempted suicide, sexually transmitted disease, obesity, diabetes, heart disease, stroke, chronic obstructive pulmonary disease, and cancer (Garland et al., 2013; Melnyk et al., 2014; Mitchell & O’Connor, 2013). For the purpose of this project, trauma and its associated effects on adolescent substance abuse and truancy will be examined.

Trauma and substance abuse.

Substance abuse is more common in populations who have experienced trauma (Ahmadi, Tabatabee, & Gozin, 2006; Garland et al., 2013; Horton, Diaz, & Green, 2009; Suarez et al., 2012). Adolescents who have experienced trauma are 1.5 times more likely to use illicit substances, especially marijuana, than their non-traumatized peers (Centers for Disease Control and Prevention (CDC), 2014). As the literature emphasizes, “childhood is a uniquely vulnerable neurodevelopmental period for exposure to trauma, placing the youth at risk for subsequent substance use disorders” (Suarez et al., 2012, p. 430). Repetitive trauma exposure disrupts a
person’s ability to self-regulate leading to heightened stress sensitivity and vulnerability to self-medicate through substance use (Garland et al., 2013). Additionally, the increased autonomy of adolescents, especially those who engage in substance use, may place the adolescent at an increased risk for further traumas. (Garland et al., 2013; Suarez et al., 2012). In 2013, an estimated 2.2 million adolescents aged 12 to 17 identified as current illicit drug users and 1.6 million adolescents identified as past month binge drinkers (Substance Abuse and Mental Health Services Administration (SAMHSA), Center for Behavioral Health Statistics and Quality (CBHSQ), 2014). Additionally, in 2013 22.7 million individuals aged 12 or older sought treatment for an illicit drug or alcohol use problem (SAMHSA, CBHSQ, 2014). Adolescents who have experienced trauma and engage in drug and alcohol use are at an increased risk for mental health disorders (Smith & Saldana, 2013), somatic complaints (Garland et al., 2013), difficulty in role transitions (Horton et al., 2009), truancy (Flaherty, Sutphen, & Ely, 2012; Grogan-Kaylor, 2008; Janosz, Archambault, Pagani, Pascal, Morin, & Bowen, 2008), and crime (Ahmadi et al., 2006; Smith & Saldana, 2013).

**Trauma and truancy.**

Truancy is identified as one of the top 10 most concerning problems within the school system (Van der Aa, Rebollo-Mesa, Willemseem, Boomama & Bartels, 2009). Children and adolescents who have experienced significant traumas are at a greater risk for serious delinquency than their counterparts (Bender, 2010; Chang, Chen, & Brownson, 2003; Grogan-Kaylor, Ruffolo, Ortega, & Clarke, 2008; Janosz et al., 2008; Smith & Saldana, 2013). In a national survey of adolescents in the United States, “11% of 8th graders, 16% of 10th graders, and 35% of 12th graders reported skipping 1 or more days of school during the previous 30 days” (Henry & Huizinga, 2007, p. 358.e9). Truancy in children and adolescents is correlated with
higher incidents of drug use (Flaherty et al., 2012; Henry & Huizinga, 2007; Van der Aa et al., 2009), violence behaviors (Bender, 2010; Chang et al., 2003), arrests in their adulthood (Bender, 2010), and later unemployment (Grogan-Kaylor et al., 2008). Approximately 50% of students older than 14 who suffer from mental illness drop out of school (National Alliance on Mental Illness (NAMI), 2006). This is the highest dropout rate of any disability group (NAMI, 2006).

Violence and bullying in the school setting is becoming more prevalent, further perpetuating rates of school-related trauma and delinquency in adolescents (Janosz et al., 2008; Chang et al., 2003; Grogan-Kaylor et al., 2008). In the United States, appropriately 80% of school age children have witnessed verbal aggression and another 75% have witnessed physical violence in the school setting (Janosz et al., 2008). According to the National Survey of Child Exposure to Violence I (NatSCEV I), 41.2% or 2 out of five children were physically assaulted (Finkelhor, Turner, Shattuck, & Hamby, 2013). Of those assaulted, 17.9% were assaulted by a peer in the last year with an even higher lifetime victimization of 27.8% (Finkelhor et al., 2013). Witnessing repetitive school violence or trauma may generate feelings of insecurity that can lead to delinquency or disengagement from the school setting (Janosz et al., 2008; Grogan-Kaylor, 2008).

History

The first research regarding ACEs and their negative associated outcomes began in 1995 during a collaboration between the Centers for Disease Control and Prevention (CDC) and Kaiser Permanente; more than 17,000 Kaiser patients completed the confidential survey (SAMHSA, n.d.). The ACE study was the first of its kind and sparked research into various facets of ACEs. Survey participants were white, middle class adults. The ACE study results were as follows (CDC, 2014; SAMHSA, n.d.):
• ACEs are common. 28% of Kaiser participants reported physical abuse and 21% reported sexual abuse. Substance abuse and mental illness of a parent and divorce or separation were also common events.

• Women were more likely to experience sexual and emotional abuse (24.7% and 13.1% versus 16.0% and 7.6%) whereas men more frequently experienced physical trauma (29.9% versus 27%).

• ACEs cluster. Almost 40% of the Kaiser sample reported two or more ACEs and 12.5% experienced four or more. Men were more likely to experience 1-2 ACEs where women more frequently experienced 3 or more traumatic experiences.

• ACEs are co-morbid and co-occurring with numerous health, social, and behavioral problems throughout the lifespan.

As the participants of the ACE study were 75% white, the external validity of the survey is limited; in particular, it is difficult to reliably generalize the results to minority populations are at an increased risk for experiencing at least one ACE in their lifetime (Suarez et al., 2012)

Local Problem

According to Center for Youth Wellness (2013), a California based organization, 61.7% of adults have experienced at least one ACE in their lives and 16.7% have experienced 4 or more ACEs. One in six or 16.7% of individuals who have experienced four or more ACEs is higher than the original Kaiser study that found 12.5% of surveyed participants experienced ACEs to that degree (Felitti, Anda, Nordenberg, Williamson, Spitz, Edwards, Koss, & Marks, 1998). In California, the counties with the highest number of ACEs include: Mendocino/Humboldt County with 75.1% of its residents having experienced at least one ACE and Butte County with 76.5% of its residence having experienced one or more ACEs; conversely the counties with lowest number
of ACEs include Santa Clara County and San Mateo with 53.4 and 53.9% of its population experiencing one or more ACE (CYW, 2013).

The three most common ACEs experienced by California adults include emotional or verbal abuse, parental divorce and separation, and substance abuse by a family or household member (CYW, 2013). Thirty five percent of adults note that a parent or significant adult insulted, swore, or belittled them during their childhood and/or adolescents (CYW, 2013). These findings contrast the statistics presented by the U.S. Department of Health and Human Services, Administration for Children and Families, Administration on Children, Youth and Families, Children’s Bureau (2013) that state:

• In 2012, U.S. state and local child protective services (CPS) received an estimated 3.4 million referrals of children being abused or neglected.

• Of the child victims, 78% were victims of neglect; 18% of physical abuse; 9% of sexual abuse; and 11% were victims of other types of maltreatment, including emotional and threatened abuse, parent’s drug/alcohol abuse, or lack of supervision.

• CPS reports of child maltreatment may underestimate the true occurrence. A non-CPS study estimated that 1 in 4 U.S. children experience some form of child maltreatment in their lifetimes.

• The total lifetime economic burden resulting from new cases of fatal and nonfatal child maltreatment in the United States is approximately $124 billion.

Gap Identified

In 2012, Washington legislators banded together to enact House Bill 1965 to decrease ACEs and their associated effects including substance abuse and truancy; their efforts were
multidisciplinary with an emphasis on primary prevention and community engagement (Kagi & Regala, 2012). Even with legislature gaining momentum, little integration of the ACEs study results has occurred in community health or primary pediatric care (Mitchell & O’Connor, 2013). As practitioners note little to no education and lack of effective guidance makes meeting the needs of at risk youth nearly impossible in their settings (Grenard et al., 2007; Mitchell & O’Connor, 2013). Future interventions should be geared toward educating practitioners regarding better assessment for trauma while implementing brief motivational models to assist in alleviating trauma-related symptoms (Baer, Garrett, Beadnell, Wells, & Peterson, 2007; Baer, Beadnell, Garrett, Hartzler, Wells, & Peterson, 2008; D’Amico, Miles, Stern, & Meredith, 2008; Jackman, 2012). Adolescents who have experienced trauma are less likely to seek out services due to stigma, fears related to confidentiality, or feeling like they cannot relate to the provider (Baer et al., 2007; Baer et al., 2008; D’Amico et al., 2008). Interventions related to trauma, substance abuse and truancy are complex and multifactorial, requiring multiple strategies (Grenard, Ames, Wiers, Thush, Stacy, & Sussman, 2007).

**Purpose for Change**

Given that providers highlight a need for more educational tools and guidance in meeting the needs of at risk youth (Grenard et al., 2007; Mitchell & O’Connor, 2013), this project aimed to increase awareness of trauma related resources, among school nurses. Trauma-related or informed care is not traditionally taught to school health practitioners (Grenard et al., 2007; Mitchell & O’Connor, 2013). By providing them with helpful links and interviewing techniques, practitioners may become more aware of where to send their service seeking students and how to illicit the information necessary for proper referrals. More targeted referrals or available services may assist the child or adolescents in functioning more effectively in the school setting.
Aim Statement

As a result of this project, school health practitioners in the Sonoma County School Nurse Association will be more knowledgeable regarding the specialized care of children and adolescents who have experienced trauma by the spring of 2016. The overarching goal of the intervention is two-fold: (1) to increase provider awareness of trauma and (2) to increase provider awareness of trauma resources in the school setting from them and their patients. The presentation of an evidenced based toolkit included trauma definitions, trauma informed care, and brief interventions appropriate for the school setting. Brief interventions presented include play therapy, motivational interviewing, and cognitive restructuring. By better preparing school nurses to navigate the effects of trauma, student may better function in their schools by reduce truancy and substance abuse in the community settings.

Baseline data regarding demographic information and current knowledge regarding trauma informed practices was collected via paper survey during the toolkit presentation. Additionally, practitioners were surveyed six weeks after the presentation to ascertain if they utilized the provided tool kit and its associated resources. In addition to resource utilization, school nurses were asked to assess the barriers to utilizing the presented tool kit and clinical techniques.

Objectives

The primary objective of the project is to increase the awareness of trauma related interventions and resources for school health practitioners to manage the negative behaviors associated with trauma. Practitioner knowledge and confidence with the subject matter may increase in response to the educational toolkit. Increasing the number of trauma informed practitioners is an integral part of starting the multidisciplinary conversation needed to decrease
the negative effects of ACEs. School health practitioners, after trauma informed knowledge acquisition, could be the necessary change agents needed to better care for this vulnerable population.

**Review of Evidence**

An Evidence Syntheses table can be found in Appendix A contrasting the interventions, study designs, and conclusions for the articles found in sections regarding defining trauma, toxic stress, and trauma informed systems.

**What is Trauma?**

The definition of trauma is not universal. Definitions vary within and across institutions and as well as schools of thought. Indeed, “[t]he definition of trauma does not name types of trauma or traumatic events. Instead it describes the experience of trauma and highlights the factors that influence the perception of trauma” (Center for Early Childhood Mental Health Consultation (CECMHC), n.d., n.p.). McInerney and McKlinson (n.d.) define childhood trauma as a series of events that render a child temporarily helpless, surpassing the child’s ordinary coping and defense mechanisms. The perceived trauma is dependent upon the child’s past experiences, personality traits, home and school environments (McInerney & McKlinson, n.d.). The American Psychological Association (2013), frames trauma, in regards to a diagnosis of Post Traumatic Stress Disorder (PTSD) and is defined as: directly experiencing a traumatic event, witnessing a traumatic event, learns of a traumatic event involving a family member or close friend or repeated exposure to the details of traumatic event. Lastly, Felitti et al. (1998) utilized three categories to define trauma in the ACE study:

- Abuse- physical, emotional, and sexual
- Neglect- physical and emotional
• Household dysfunction - mental illness, substance abuse, incarcerated parent, mother treated violently and/or divorce or separation.

Due to the holistic nature of the ACE definition and its presence in the current trauma-informed literature, the ACE definition will be used for trauma throughout this paper.

**Toxic Stress**

Stress is experienced by individuals in three levels: positive, tolerable and toxic. Positive stress is an essential physiological response to new or anxiety provoking situations (CYW, 2013). For example, an individual’s heart rate may increase due to a school presentation, medical procedure, or job interview. This stress is time limited and likely handled using the innate coping strategies for that individual. But when does stress become toxic? Toxic stress occurs when a prolonged, repetitive stress response has the potential to disrupt brain development and stunt cognitive functioning due to accumulated trauma and inadequate supports or coping skills (CYW, 2013). Children, adolescents, and adults who experience poly-traumas are more likely to have severe mental and physical health disorders than those who have experienced a singular traumatic episode (Green & Myrick, 2014). Shonkoff and colleagues (2012) note that toxic stress has a significant impact on learning, memory, executive function, and mood control due to the various structural and hormonal changes correlated with a prolonged, and unsupported stress response. Significant changes in how a child learns, remembers information, and controls his or her mood occurs due to various structural changes in the hippocampus and prefrontal cortex and hormonal changes due to excessive, sustained cortisol production (Green & Myrick, 2014; Shonkoff, 2012). Well-connected neural pathways are diminished in children with multiple traumas leading to less effective emotional and behavioral regulation; neural and regulatory alterations lead to subsequent difficulties in establishing and maintain relationships, modulating
Trauma Informed Care

Organizations, institutions, and individuals who are trauma informed embody a variety of broad guiding principles to meet the needs of their specific patient populations. The most rudimentary definition of trauma informed care is understanding how trauma affects its survivors (Raja et al., 2015). Trauma informed systems abide by the following guiding principles and practices: trauma occurs frequently and in all populations, trauma is recognized quickly and efficiently in those involved in that system, policies, procedures, and practices have fully integrated knowledge of trauma, and system participants actively seek to avoid re-traumatization (SAMHSA, 2015). Although practices and principles for trauma informed systems are defined, little research has been conducted on the day-to-day interworking and outcomes of trauma informed care (Raja et al., 2015).

Generally, trauma informed interventions are divided into two separate categories: primary screening assessments to better detect and identify for trauma and tertiary interventions to better manage those who have experienced trauma in a holistic and multidisciplinary way (Raja et al., 2015). Hummer, Dollard, Robst, & Armstrong (2010), divide interventions into the same categories but classify the interventions as trauma informed and trauma specific. A trauma informed system supports and sustains trauma specific interventions as they are educated regarding the frequent, complex nature of trauma (Hummer et al., 2010). Muskett (2014) discusses the potential for a client to perceive suboptimal trauma informed care to be a lack of...
participation and empowerment when planning care and disrespectful or preoccupied staff. Feelings of passivity and inferiority reinforce client re-victimization and do not support client return for services (Muskett, 2014).

Providers involved in trauma informed care must assess their own feelings regarding trauma and reflect on their previous experiences and preconceived notions (Raja et al., 2015). Providers who have previously experienced trauma may be less likely to ask a child or adolescent about trauma out of fear of triggering their own trauma dialogue (Esaki, Benamati, Yanosy, Middleton, Hopson, Hummer, & Bloom, 2013; Rivard, Bloom, McCorkle, & Abramovitz, 2005). Due to the highly sensitive nature of trauma informed work, providers must ensure “Trauma Stewardship”, caring for the client without taking on their trauma vicariously to avoid burnout and the negative affects of poor provider and client boundaries (Raja et al., 2015).

**Play Therapy**

Play and art-based methods of expression are a natural means of expression and coping for children and adolescents (Perryman, Moss, & Cochran, 2015). The Association for Play Therapy (2008) has defined play therapy as “use of the therapeutic powers of play to help clients prevent or resolve psychosocial difficulties and achieve optimal growth and development.” Play therapy can improve communication skills, cultivate feelings of pride, improve self-awareness, and bring attention to positive coping skills and strategies (Perryman et al., 2015).

Play therapists watch for patterns and themes in a child’s play in order to provoke imaginary or play situations that will allow for a child to reenact a traumatic or significant event (Homeyer & Morrison, 2008). Toys allow for creative and emotional expression, testing of limits, and role-playing reality, and play therapists have a sound theoretical rationale for selecting and placing toys and materials in a play therapy playroom (Homeyer & Morrison, 2008). Play
therapy provides children and adolescents with developmentally appropriate means to increase control of mood or emotions and problem solving while aiding in the formation of a therapeutic relationship with their practitioner (Green & Myrick, 2014). Play therapy can be extremely successful in allowing a trauma survivor to tell their narrative nonverbally to circumvent retraumatization through verbal retelling of their trauma (Badenoch, 2008). Play therapy allows children and adolescents to maintain a comfortable distance from their traumas until they inch forward at their own pace and confront them (Crenshaw & Hardy, 2007).

When working with children and adolescents who have experienced trauma, play therapy can be divided into the following distinct phases: Safety and stabilization, trauma processing, and reconnection (Green & Myrick, 2014). Safety and stabilization centers around establishing a therapeutic alliance with a child or adolescent, increasing the person’s awareness of their symptoms, and education regarding the therapeutic process and management outcomes (Green & Myrick, 2014). Trauma processing involves the client retelling the trauma narrative with less negative, more accurate feelings toward themselves in conjunction with mastery over the associated emotions (Courtois & Ford, 2009). Last, the reconnection phase involves establishing and working toward life goals with an emphasis on establishing healthy relationships and productive life choices and/or activities (Green & Myrick, 2014). These phases are not meant to be linear but alternated between phases; with clients who have experienced multi-faceted traumas (Brand et al., 2012; Green, 2012). Safety may need to be addressed in all phases of treatment to minimize mistrust of practitioners and the health system (Brand et al., 2012; Green, 2012).

Examples of play therapy include:
• “Balloons of Anger” provides children with a visual representation of anger and the impact that it can have upon them and their environment. It allows the children to see how anger can build up inside of them and how, if it is not released slowly and safely, anger can explode and hurt themselves or others. A practitioner has two balloons, one is blown up and tied while the other is blown up and pinched off. The practitioner and the child discuss how anger has filled the balloon. The child is asked try to get the air out of the balloon that is tied. The child then watches the practitioner gradually let air out of the balloon and coping skills are discussed (Hall et al., 2002).

• “Beat the Clock” was designed to increase children’s self control and impulse control. The goal of this game is for the child to resist distraction, remaining on task and focused for a specified period of time. The practitioner gives the child blocks and tells him or her to stack them for 10 minutes, every time he or she looks away or gets distracted, they give back one of ten poker chips. The practitioner increasingly adds distractions and praises the participant upon completion (Hall et al., 2002).

• “Dream Your Bad Dream” encourages externalization of dreams and empowers children to gain control of their dreams. Participants are first asked to draw a picture of their dream. Once the drawing is complete, they are asked to destroy it to signify that they are stronger than their dream. Some participants rip up their picture, others draw over the original drawing. Last, the participant is asked to draw a strong character or superhero to provide an alternate, neutralized ending (Boyd-Webb, 2001).

Motivational Interviewing

Brief interventions based on motivational interviewing assist adolescents in examining their behaviors in a non-judgmental way (Hamilton et al., 2004). Motivational interviewing can
be an ideal intervention for school healthcare practitioners and adolescents as it can be easily understood by the practitioner and student due to its ordinary language surrounding thoughts, feeling, and behaviors (Baer et al. 2008; Grenard et al., 2007). Motivational interviewing is “a low threshold, low demand intervention” that may encourage difficult-to-reach-individuals to reduce risky behaviors and make better use of available services (Baer et al., 2007). Motivational interviewing is patient centered in nature, a concept that is discussed and familiar to healthcare professionals of many disciplines (Britt, Hudson, & Blampied, 2004). For example, many health problems are associated with poor diet, lack of exercise, and negative behaviors. By decreasing ambivalence to change and increasing patient autonomy, motivational interviewing has been successful in promoting weight loss, medication adherence, facilitating healthy eating patterns, and enhancing general health and wellness through behavior modification (Britt et al., 2004; Madson, Loignon, & Lane, 2009). Motivational interviewing has been shown to decrease the following negative health behaviors associated with trauma: tobacco use (Hamilton et al. 2004), substance abuse (Baer et al., 2007; Baer et al., 2008; Martin & Copeland, 2008), risky behaviors (Jackman, 2012; Grenard et al., 2007), truancy (Enea & Dafinoiu, 2009), and symptoms associated with mental illness (Jackman, 2012). Learning to identify trauma early and prompt use of motivational interviewing can provide school nurses the tools to promote positive health behaviors and decrease the negative side effects of trauma.

The hallmark of motivational interviewing is establishing an empathetic, collaborative relationship between practitioner and client (Miller & Moyers, 2006). Motivational interviewing taps into an individual’s intrinsic strength in order to resolve ambivalence and foster more positive health outcomes (Enea & Dafinoiu, 2009). Motivational interviewing assumes that individuals have the tools within themselves to be successful and overcome their ambivalence
toward change. (Soderlund, Madson, Rubak, & Nilsen, 2011). Once change is realized as attainable, the behaviors are reinforced and praised (Miller & Moyer, 2006).

The principles of motivation interviewing comprise expressing empathy, developing discrepancy, rolling with resistance, and supporting self-efficacy (Enea & Dafinoiu, 2009; Frey, Cloud, Lee, Small, Seeley, Feil, Walker, & Golly, 2011; Miller & Moyers, 2006). Expressing empathy is accomplished by accepting the participant as they are and utilizing non-judgmental language to discuss negative health behaviors and change (Jackman, 2012). Developing discrepancy involves showing the participant the gap between their current behavior and the behavior or outcome they desire (Frey et al., 2011). Practitioners must be sensitive to ensure that the adolescent does not feel pressured or coerced. Rolling with resistance speaks to the fact that ambivalence to change is natural; it is critical to avoid confrontation at this stage as it may cause the adolescents to become defensive and sever the trust between student and nurse (Jackman, 2012). Last, supporting self-efficacy involves applauding healthy or positive behaviors; for some, this may be as simple as seeking support or guidance (Britt et al., 2004).

Motivational interviewing is divided into two phases; phase 1 is comprised of resolving ambivalence towards change while phase 2 occurs after the motivation to change is activated (Frey et al., 2011). Phase 2 utilizes the OARS skills which include: asking open-ended questions, affirmation of strengths or positive behaviors, reflective listening, and summarizing or rephrasing what the client has expressed (Jackman, 2012; Miller & Moyers, 2006). The OARS skills not only allow the practitioner to elicit what may or may not have worked in the past, regarding behavior modification, but also assists in building rapport or an alliance with the child or adolescent. School nurses may find MI techniques intuitively appealing as they are trained to
be empathic, reflective and collaborative with the people or communities they serve (Soderlund et al., 2011).

**Cognitive Restructuring**

The most empirically supported treatment for trauma survivors or those diagnosed with PTSD is Cognitive-Behavioral Therapy (CBT) (APA, 1998; Rosenberg, Jankowski, Fortuna, Rosenberg, & Mueser, 2011). The most rigorously researched and widely utilized type of CBT for persons who have experienced trauma is Trauma Focused-Cognitive Behavioral Therapy (TF-CBT); most TF-CBT interventions have been conducted on young children and those who have experienced sexual abuse (Rosenburg et al., 2011). CBT is a form of treatment that focuses on examining the relationships between thoughts, feelings and behaviors (Beck, 2011, Wheeler, 2008). By exploring patterns of thinking that lead to self-destructive actions and the beliefs that direct these thoughts, people with a variety of mental illnesses or disruptive patterns of behavior can modify their patterns of thinking to improve coping (Wheeler, 2008).

Cognitive restructuring is a therapeutic modality housed in CBT that can be used briefly and over a short period of time; cognitive restructuring assists participants in identifying thoughts and behaviors associated with their trauma while examining the accuracy of those thoughts and developing more positive and healthy interpretations (Rosenburg et al. 2011). Practitioners engaging participants in cognitive restructuring avoid giving advice in order to increase control and participation in identifying maladaptations and solutions. (Rosenburg, 2011). This treatment engagement and increase in participant control increases participant recruitment, retention, and efficacy (Oetzel & Scherer, 2003). Cognitive restructuring has been successful in mitigating multiple impacts of complex trauma in children and adolescents including irrational thoughts and explosive behavior (Eseadi, Anyanwu, Oguabor, & Ikechukwu-Ilomuanya, 2016), depressive
symptoms and mood dysregulation (Aderka, Gillihan, McLean, & Foa, 2013), and the anger, guilt, and anxiety that are common to trauma survivors (Mueser, Rosenberg, & Rosenberg, 2009).

Examples of cognitive restructuring include:

- “The Double Standard Method”- Teach the participant to talk to him or herself in a compassionate way, similar to how you would talk to a friend or loved one. Compassionate, positive thinking helps prevent excessive negative thought about one’s actions, feelings, or behaviors.
- “Thinking in Shades of Gray”- Avoid thinking in all or nothing extremes. Use scales of 0-100 to discuss situations that may not have gone as well as planned or hoped.
- “Re-attribution”- When a participant is blaming him or herself for a problem, discuss all the factors that led up to the decision or outcome. For visual representation, draw a pie chart of the contributing factors and their respective weight in the situation.
- “Define Terms”- When participants label themselves as a “loser” or “bad kid” have them define what that word actually means. Often times, participants either cannot articulate a definition or do not feel they fit the provided description (Burns, 1980).

Conceptual Framework

Interventions geared toward managing children and youth, who have experienced ACEs are grounded in biopsychosocial theory. Healthy development of the body and mind center on one’s response to external and internal events; misguided or immature coping mechanism may lead to less than ideal behavioral and health outcomes (Larkin, Felitti, & Anda, 2014). Resources and support should be rooted in ideals of resilience and positive self-appraisal (Mitchell & O’Connor, 2013). Brief motivational interventions aim to illicit change through open-ended
questions, affirming the positive, utilizing reflective listening, and summarizing to actively engage the adolescent in a non-judgmental, non-directive way (Jackman, 2012).

**Methods**

**Ethical Issues**

The intervention conducted by this writer was deemed a quality improvement project by the Doctor of Nursing Practice faculty via a Statement of Determination form (Appendix A). The project focuses on changing professional practice and not research, therefore this writer was not required to submit a project proposal to the Institutional Review Board for the Protection of Human Subjects. Additionally, the “Protecting Human Research Participants” module by the National Institutes of Health was completed to ensure compliance and awareness of related research protections, policies, and procedures.

The ethical principals associated with this quality improvement endeavor include justice, autonomy and beneficence. Trauma survivors elevated risk for developing mental and physical health problems (Green & Myrick, 2014). By increasing the utilization and awareness of trauma informed methods, trauma survivors may receive more targeted care to alleviate negative symptoms of toxic stress. Patients who have experienced trauma often feel powerless; therapeutic modalities for trauma survivors involve redistribution of power and allowing to client to be the driver of their care and healing (Rosenburg, 2011). Last, this writer and participating school nurses aimed to evoke beneficence by providing a safe and therapeutic environment for children and adolescents to process their emotions and begin to heal.

**Setting**

Interventions in the school setting are ideal as academic and healthcare professionals have consistent contact with this population (Melnyk et al., 2014). School health practitioners
build rapport with students and are more likely to be trusted to discuss difficult or shameful behaviors (Hamilton, O’Connell, & Cross, 2004). Considering a school age population, mental health disorders in children and adolescents are common with 4-8% of the population meeting DSM IV criteria for a severe disorder with accompanied impairment (Stallard, Simpson, Anderson, Hibbert, & Osborn, 2007). Minority populations may benefit the most from school-based interventions as they are less likely to receive primary care services than their Caucasian counterparts (Melnyk et al., 2014).

**Sonoma County, California**

Sonoma County is located north of San Francisco with a population of over 500,000 (U.S. Census Bureau, 2014). It is estimated that 21% of those residing in Sonoma are under the age of 18 and attending school in some capacity (U.S. Census Bureau, 2014). Some 70,932 students attend 185 public schools throughout the county. Sonoma county school district is compromised of 108 elementary schools, 27 middle schools, 19 high schools, as well as 24 alternative schools and 7 independent study schools (Sonoma County Office of Education, 2013). It is estimated that 87% of Sonoma County’s residents identify themselves as Caucasian, 26% Latino, 4.3% Asian, and 1.9% African American (U.S. Census Bureau, 2014). This data is contradictory to the 2012-2013 Statistical report produced by the Sonoma County Office of Education, that states that 43% of students are Latino and 46% are Caucasian; additionally, 23% of students are learning English, 48% are of a low socioeconomic status and 12% received services via special education. Eighty nine percent of Sonoma County residents have at least a high school diploma or equivalent while another 33% hold a Bachelors degree by the age of 25 (U.S. Census Bureau, 2014).
Of note, on October 14, 2015, Sonoma County was chosen as one of the 14 counties, throughout the United States, to receive funding for expanded education and services for children, adolescents, and families affected by ACEs through the Mobilizing Action for Resilient Communities (MARC) grant (Sonoma County ACEs Connection, 2015). The two-year grant funding will allow the Sonoma County ACEs connection group to join a learning community to share best practices, pilot new evidenced-based approaches, and act as a model for those partaking in ACE related care (Sonoma County ACEs Connection, 2015). The goal of this national endeavor is to decrease the side effects of trauma and ACEs while cultivating stronger, more resilient communities (Sonoma County ACEs Connection, 2015).

**Planning the Intervention**

Prior to development of the trauma informed care module, this writer attended multiple Adolescent Health Working Group (AHWG) meetings and ACE Connection meetings to become immersed in local support efforts and available Bay Area resources. These meetings provided a current framework for trauma informed interventions and examples of how institutions, large and small, private and public, are developing programs to prevent and respond to the local and national effects of trauma. Sonoma County School Nurse Association immediately conveyed their interest in a training session and agreed to partner with this writer. The formal DNP residency contract can be found in Appendix B.

An extensive review of the literature was conducted prior to the development of the module in order to better understand what is typically presented to school health practitioners in regards to trauma and its associated care. During the module formation phase, numerous courses were completed via the National Child Traumatic Stress Network and various school based trauma informed curriculums were reviewed. Additionally, this writer reviewed Cognitive
Behavior Therapy and Motivational Interviewing via textbooks and course notes utilized during her Psychiatric Mental Health Nurse Practitioner curriculum.

After the development of the module, multiple content expert practitioners and academic partners reviewed the content and proposed delivery of information. The following content experts reviewed the module prior to the training: Dr. Travis Svensson, Dr. Michelle Montagno, and Yeshi HaileSelassie.

Dr. Travis Svensson is the Director of the Clinical Training & Research Institute (CTRI) and a faculty member at University of San Francisco in the School of Nursing and Health Professions. He is trained in Eye Movement Desensitization and Reprocessing (EMDR) and was previously the Associate Medical Director of Psychiatric Emergency Service at San Francisco General Hospital.

Dr. Michelle Montagno is the Director of the Doctor of Clinical Psychology program at USF in the School of Nursing and Health Professions' Department of Integrated Healthcare. She is also a licensed clinical psychologist and has been practicing in San Francisco for 5 years, treating a range of clinical issues including depression, anxiety, trauma, and grief.

Yeshi HaileSelassie has worked at Oakland Unified School District (OUSD) and public health departments of Alameda and San Francisco counties working with children in the foster care system. She believes that “her experience rendering care to patients on both the receiving and inflicting ends of trauma has meaningfully influenced her care approach, reinforcing her long held belief that the unique experiences of each individual call for unique plans in order to achieve successful outcomes.”

After successful review from content experts, Drs. Pauly-O’Neill, Curtis, and Keeler reviewed the module and provided feedback regarding presentation flow, timing, and content depth.
Various materials were provided to the participating school nurses in conjunction with the PowerPoint presentation. Additional module materials included: a side-by-side comparison of traditional techniques and more trauma informed approaches via a vignette, a clinical tool for refining motivational interviewing skills, and an additional resource page that included local trauma informed organizations and reliable internet sources for additional trauma informed knowledge acquisition. Participating nurses completed evaluations before and after the presentation. The pre-presentation evaluation included demographic information and questions regarding previous trauma trainings and comfort level working with trauma survivors. The PowerPoint presentation, additional resources and evaluation tools can be found in Appendices C through H.

**Stakeholders**

- University of San Francisco (USF)- University of San Francisco is a Jesuit University that seeks to promote ideals of social justice and acting as men and women for others; the university offers a variety of degree programs for students attending their undergraduate and graduate programs (University of San Francisco, n.d.).

- Sonoma County School Nurse Association- Sonoma County School Nurse Association is a non-profit organization comprised of approximately 50 nurses throughout Sonoma County. Monthly meetings are scheduled in order to share information, provide support, increase educational in-services and network.

- School Nurses- Thirteen school nurses were present for the module presentation. Ten nurses present agreed to complete surveys pre-intervention, immediately post intervention, and six-weeks post intervention. The ten participating nurses represented nine different school districts within Sonoma County. Four of the participating nurses
have received previously training regarding trauma informed care. The average years of practice for this group of nurses is 16.1 years with 10.1 years dedicated school health nursing. Full demographic information may be found in Appendix I.

**SWOT Analysis**

Barriers to implementation are associated with the weaknesses and threats described in the SWOT analysis (Appendix L). Many of the program barriers stem from a lack of practitioner buy-in and time or a lack of practitioner at the participating site. According to the National Association of School Nurses (NASN), one full-time school nurse manages the care of about 750 students in good health. Students with complex medical needs or those that require daily interventions may decrease ratios to one nurse to for every 125 students (NASN, 2010). The role of the school nurse spans acute and chronic disease management to legal advocacy and policymaking. With practitioners already stretched thin, implementing additional programs may seem almost impossible.

Due to dearth of studies illustrating robust and successful implementation of trauma informed care into the school setting, practitioners may not know how to implement interventions. A lack of mentorship also contributes to practitioner ambiguity. Many providers feel that they do not take care for children and adolescents who have experienced trauma. This mentality leads to missed screening opportunity and ineffective, unequal care for students who have or are currently experiencing ACEs.

**Communication Matrix**

Flow of information was communicated via various methods, although email was the primary means of dissemination. Frequent updates and vital information was passed between the
student (this writer), committee members, and the Sonoma County School Nurse Association in a timely and effective manner via email. In-person meetings with the DNP chair, Dr. Susan Pauly-O’Neill, and this writer occurred as needed to operationalize the project objectives in accord with the specified timeline. Committee members were an integral part of analyzing and critiquing project data in a meaningful, robust way.

**Implementing the Project**

The project was implemented during a two-hour presentation to 13 school nurses who attended a Sonoma County School Nurse Association January meeting. The module presentation was guided by a PowerPoint presentation that covered definitions of trauma and trauma-informed care, statistical data regarding prevalence of trauma and ACEs, and three clinical interventions including play therapy, motivational interviewing, and cognitive restructuring. After definitions of trauma and trauma informed systems were presented, participants were asked to read a vignette highlighting the differences between traditional and trauma informed schools after an altercation. After reading the document independently, a lively discussion ensued regarding challenges in implementing trauma informed systems, need for additional mental health supports, and the side effects of trauma on academic success. This writer then presented side effects of trauma, play therapy, and motivational interviewing. After explaining motivational interviewing, participants were directed to the OARS worksheet to practice utilizing motivational interviewing skills. School nurses utilized challenging clinical situations they had encountered to practice the OARS skills. The presentation ended with a lesson regarding cognitive restructuring and a question and answer session.

**Timeline**
A detailed, temporal outline of the project can be found in the GANTT chart (Appendix J). Significant milestones in project progression include:

- June 2014- Advisor and committee solidified
- July 2014-Project Approval by DNP committee
- August 2014- Begin N749
- October 2014- Submit project prospectus and manuscript
- December 2015- Confirm participating school districts
- December 2015- Build curriculum and presentation
- January 2016- Present curriculum to Sonoma County School Nurse Association
- February 2016- Gather post-intervention utilization data
- March 2016- Analyze data
- April 2016- Final manuscript completed and approved by committee
- May 2016- Present findings to committee

**Methods of Evaluation**

Baseline data was collected from the participating school nurses before and after the module presentation. Survey questions gauged providers comfort level when working with children and adolescents who have experienced trauma, previous trauma training, and level of confidence in trauma related definitions and knowledge. Six weeks after the presentation, the participating school nurses received an email with a GoogleForm link to collect follow-up data. Each participant was asked if they used the clinical techniques presented, how often they utilized them and if they felt more confident in providing trauma related care. The goal of the
intervention is to have an increase in the utilization of trauma informed modalities and practitioner confidence.

**Tool for Evaluation**

The tool utilized to evaluate the interventions effectively was a GoogleForm containing statements regarding practitioner use of clinical tools and resources presented by this writer. Participants completed a 10-statement survey via email. All responses were anonymous and cannot be traced back to the individual practitioner. The following statements were presented in conjunction with an Always-Never likert scale:

- *Since the presentation, I have felt more confident in working with children and adolescence who have experienced trauma.*
- *I have utilized the motivational interviewing techniques presented.*
- *I have utilized the play therapy techniques presented.*
- *I have utilized the cognitive restructuring techniques presented.*
- *I looked over the provided resources and tool kits*

Each statement was followed by a question asking why the clinical technique was not utilized to better inform this writer of practitioner difficulties when integrating trauma informed modalities. The survey included space for additional comments to allow for qualitative responses. The full evaluation tool can be found in Appendix K.

**Budget and Cost Benefit Analysis**

A detailed proposed budget can be found in Appendix M. Costs associated with the project are minor. The majority of the project budget was allocated to printing toolkit materials given to the practitioners in attendance of the presentation. The DNP student designed the toolkit presentation in order to keep project costs minimal. Follow-up data was retrieved via
Google Forms, a free internet application. No outside funding was utilized for the implementation of this project.

The cost benefit analysis for this project is challenging to define. The literature states that populations plagued by ACEs are at a higher risk of developing various medical conditions. The literature also states that trauma survivors are at a higher risk for substance abuse, truancy, and incarceration. Without data to discuss the success rates of ACE specific care, the DNP student must make assumptions about the potential financial benefits of the intervention. The following are the associated costs of ACE related outcomes specific to trauma, substance abuse, and truancy:

- Substance Abuse Treatment- $5,402.00/year
- Truancy- $800.00-2,000.00/pupil/school year
- Incarceration- $60,000/ inmate/year
- Suicide and Suicide attempts in youth up to 20 years of age- 1 Billion/year
- Mental Health Direct Expenditures- 57.6 Billion/year

(California Department of Health Care Services, 2012; NAMI, 2006; National Institute of Mental Health, n.d.)

If the project initiatives decrease the rate of any of the above, significant cost savings may be realized not only in health care expenditures but in judicial and prisons systems as well.

Results

Description of Empirical Methods

Practitioner data was collected at three points: (1) Prior to presentation; (2) immediately post presentation; and, six-weeks post presentation. Data retrieved prior to interventions can be found in the discussion of stakeholders and Appendix N. Appendix O will discuss practitioner
responses after the presentation and Appendix P will display on the results of the GoogleForms Survey 6 weeks post intervention.

**Qualitative Data**

Qualitative data was collected 6 weeks post intervention. The GoogleForm survey included a section for additional comments. Of the nurses who completed the survey, 50% provided qualitative comments. Complete qualitative responses can be found in Appendix Q. Of note, two of the four school nurses discussed independent research or continued use of trauma informed knowledge in their professional lives. One responder authored a paper regarding trauma informed care for her graduate-level coursework while another was able to speak about trauma informed care with a physician from the California Endowment while attending an event. Two additional participants provided context to their lack of presentation tool utilization due to being out of the county or being preoccupied by vision and hearing screenings.

**Quantitative Data**

Full results of immediately post and six-week post interventions data can be found in Appendix P. Additionally, a comparison of pre and post intervention data can be found in Appendix R. Data housed in Appendix R was interpreted via the mean of practitioner responses, a pair t-test comparing the pre and post means of each question and calculation of p values to assess statistical significance. Four of the seven questions on the questionnaire proved to have statistically significant outcomes pre and post presentation intervention.

**Immediately Post Intervention**

Immediately post intervention, 90% of participating nurses agree or strongly agree that they were confident in their definition of trauma and 80% were confident in their definition of trauma informed care. Eight of the 10 nurses agree or strongly agree that they felt confident in
their ability to articulate how trauma affects children and adolescents in the school setting. Six of the ten nurses agree or strongly agree that they were confident in their ability to participate in the care of children and adolescents who have experience trauma; the remaining four nurses were undecided about their confidence levels. One hundred percent of surveyed school nurses agreed or strongly agreed that they were interested in trauma informed care. Ninety percent of participating nurses noted that they were likely utilize motivational interviewing in their practice. Lastly, 60% of the nurses agree or strongly agreed that they will likely use the presented resources to make their schools more trauma informed.

Six-Weeks Post Intervention

Eighty percent of the participating nurses completed the follow-up survey six weeks post toolkit presentation. Since the presentation, 62.5% of the eight surveyed nurses reported feeling confident in their ability to work with children and adolescents who have experienced trauma. Fifty percent of the nurses noted that motivational interviewing was used sometimes- a two on the likert scale- in their clinical practice. Forty three percent of participants noted that motivational interviewing was not used due to a lack of appropriate clinical scenario. Twenty nine percent reported that mental health professionals intervened and 14.2% noted a lack of time or other in regards to barriers of motivational interviewing utilization. Sixty three percent of participating nurses noted that they rarely used play therapy due to a lack of appropriate scenario (83.3%) or a lack of time (16.7%). Fifty percent of surveyed nurses reported that they utilized cognitive restructuring always or most of the time in their clinical practice. For those nurses that did not utilize this technique, 60% noted a lack of appropriate clinical scenario while another 20% noted a lack of time and a desire for additional training respectively. Last, four of the eight
nurses noted that they utilized the provided resources and tool kits most of the time. All 100% of the nurses that did not use the provided materials noted “other” for the reason they were not used.

**Discussion**

**Summary**

This project demonstrated partial success in achieving its goal of increasing the knowledge of trauma informed definitions and clinical interventions for the school nurses of the Sonoma County School Nurse Association. Immediately post presentation, the majority of participating school nurses were confident in their definitions of trauma and their ability to work with children and adolescents affected by ACEs. Results were optimistic for changes in professional practice as the majority of participants noted a continued interest in trauma informed care and a desire to make their schools more trauma informed institutions. Reported utilization of the three-presented clinical interventions was varied. The surveyed nurse participants believed that motivational interviewing would be most likely utilized of the interventions. This finding is not surprising as motivational interviewing was the primary intervention covered in the PowerPoint and the only intervention practiced during the presentation.

Six-weeks post presentation, school nurses continued to be confident in their trauma informed definitions and their ability to work with children and adolescents who have experienced trauma. Less successful was the utilization of the discussed techniques. The module presentation was meant to increase practitioner knowledge and comfortability with the interventions taught. The participating school nurses were not expected to be experts in the techniques due to this intervention alone. Continued practice and additional training is needed to ensure technique mastery.
The most commonly utilized intervention, per nurse report, was cognitive restructuring. This is an interesting finding as Cognitive Restructuring was covered in as much detail and is a complex clinical modality. When surveyed about barriers to intervention utilization, nurses noted a lack of appropriate clinical scenario as the most prominent barrier to intervention utilization. What the survey did not ask was have you worked with a child or adolescent who has or is currently experiencing trauma since our training. This information could have provided more robust data about the persistent barriers school nurses face.

**Implications for Practice**

Policy makers and school officials must take an active role in providing trauma informed curriculums that include time sensitive interventions and school-specific assessment tools to increase utilization and create awareness of the efficacy and nature of trauma informed care (Tevyaw & Monti, 2004). Although the efficacy of motivational interviewing has been shown to decrease negative health behaviors across disciplines, little research has been conducted in the school setting with nurses delivering the intervention. Future research should aim to solidify the important aspects of motivational interviewing (Britt et al., 2004), produce higher quality studies (Martin & Copeland, 2008; Soderlund et al., 2011), reduce barriers to the implementation of motivational interviewing as a developmentally appropriate intervention (Frey et al., 2011; Jackman, 2012), and uncover the important environment or practitioner characteristics to ensure motivational interviewing as an effective intervention (Hamilton et al., 2004; Miller & Moyers, 2006).

Green and Myrick (2014) note that although the initial outcomes of play therapy for the treatment of complex trauma are promising, little to no research has been published to establish its efficacy or to define practice protocols. Little information is available about the necessary
characteristics for a play therapist to engage successfully with children and adolescents across the life span (Crenshaw & Hardy, 2007). Last, future research should focus on how the skills learned in play therapy translate to better coping in adolescence and adulthood, which activities or modalities are most efficacious at each developmental age and stage, and is play therapy more efficacious in managing certain health behaviors over others (Perryman, Moss, & Cochran, 2015).

Minimal research can be found regarding the use of cognitive restructuring for trauma-informed care. Cognitive restructuring is part of cognitive behavior therapy (CBT), which is the gold stand for trauma related care, but it is unclear which part of this therapeutic modality is the most effective (Rosenburg et al., 2011). Cognitive restructuring requires participants to complete homework assignments and to continue to utilize their skills outside of the therapeutic process (Mueser, Rosenberg, & Rosenberg, 2009). To date, no studies have looked at utilizing motivational interviewing or other brief positive techniques in conjunction with cognitive restructuring to increase homework completion and utilization of learned skills.

**Barriers to Implementation**

While presenting the trauma-informed techniques, some participants noted that time constraints would make it almost impossible for them partake in this type of care. Many school nurses noted that they traveled to multiple sites throughout the workday and their work was frequently interrupted to manage the more emergent needs of students and staff. This perceived lack of time and attention made some feel that these interventions were difficult to achieve in their role and would be better suited for a mental health practitioner or other school staff.

Additionally, prior to the intervention, this writer was not aware of the demographic make-up of the participants and their respective work settings. Three of the thirteen participants
worked solely with children and adolescents with severe cognitive, physical, or emotional disturbances. These three nurses agreed to participate in the collection of pre and immediately post presentation data although it is unclear whether they submitted responses six-weeks post intervention as those replies are anonymous. The interventions posed in the presentation are not appropriate for this population. In hindsight, this writer would have integrated different techniques and clinical examples to ensure that all present parties could meaningfully utilize the presented materials.

**Interpretation**

Through the implementation of this trauma-informed endeavor, this writer has been able to expand local knowledge of trauma informed care and its associated interventions. Of note, motivational interviewing continues to cultivate curiosity about its use and effectiveness in the school setting. Within the last year, the *Journal of School Nursing* had published 15 articles about motivational interviewing and the *National Association of School Nurses (NASN) School Nurse* has printed five articles, four of them housed in their January 2016 issue. In March 2016, NASN aired a webinar entitled “School Nurses and Motivational Interviewing: Painting a Picture of What School Nurses Can Do” which highlighted theories of motivation and change and the clinical skills associated with motivational interviewing. Eighty school nurses listened live to the webinar and more continued to download the archived link. This continued interest provides a climate conducive to change and innovation.

Although momentum continues to build for trauma-informed techniques, little research has been conducted regarding barriers to effective utilization and characteristics of successful integration at various institutions. The amount of trauma informed literature and number of available tool kits is overwhelming and can deter individuals from making their cites more
trauma sensitive. An increase in local learning communities may assist in providing a network to share successes and challenges to better integrate services and care across disciplines.

Conclusions

The negative effects of trauma extend beyond the healthcare system. Judicial and prison systems, educational sectors, and areas of policy are all influenced by the outcomes of those who have experienced and are plagued by trauma. School health practitioners have the unique opportunity to cultivate relationships and provide an environment of safety and consistency. This powerful practitioner-student relationship opens up lines of communication regarding trauma and negative life experiences. If practitioners are better equipped and more confident in managing these encounters, the negative outcomes of trauma may be lessen. By supporting students and their families, lives can be altered in a meaningful way.

Other Information

Funding

This quality improvement project did not utilize funds from outside sources. This writer incurred the minimal costs associated with executing this presentation.
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https://www.usfca.edu/about-usf/who-we-are/vision-mission


## Appendix A: Review of the Evidence Table

<table>
<thead>
<tr>
<th>Author</th>
<th>Year</th>
<th>Participants</th>
<th>Intervention</th>
<th>Design</th>
<th>Setting</th>
<th>Conclusions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Esaki et al.</td>
<td>2013</td>
<td>N/A</td>
<td>Discussion of the Sanctuary Model</td>
<td>N/A</td>
<td>N/A</td>
<td>This article housed the theoretical framework for implementing the Sanctuary model to strength the care for those who have experienced trauma.</td>
</tr>
<tr>
<td>Felitti et al.</td>
<td>1998</td>
<td>9508 adults</td>
<td>Questionnaire regarding ACEs were sent and analyzed</td>
<td>Cohort Study</td>
<td>N/A</td>
<td>This research suggested that ACEs occur in clusters and those exposed to trauma and/or household dysfunction are at an increased risk for physical and mental health disorders.</td>
</tr>
<tr>
<td>Green &amp; Myrick</td>
<td>2014</td>
<td>N/A</td>
<td>Original theory presented</td>
<td>N/A</td>
<td>N/A</td>
<td>Complex trauma in child and adolescents can be treated with play therapy divided into the following three phases: stabilization and safety, trauma processing, and reconnection.</td>
</tr>
<tr>
<td>Hummer et al.</td>
<td>2010</td>
<td>N/A</td>
<td>Discussion of Organizational change needed to make systems trauma informed</td>
<td>Review of Literature</td>
<td>Child welfare systems</td>
<td>This article discusses the desired climate for trauma informed systems. Readiness for change, competent trauma informed practices, and youth and family engagement were presented.</td>
</tr>
<tr>
<td>McInerney &amp; McKlinson</td>
<td>n.d.</td>
<td>N/A</td>
<td>Tool-kit for Trauma Informed Classrooms</td>
<td>N/A</td>
<td>Schools</td>
<td>This tool kit presented definitions of trauma, impacts of trauma on learning, trauma informed classroom management, and provided additional resources.</td>
</tr>
<tr>
<td>Muskett</td>
<td>2014</td>
<td>N/A</td>
<td>Discussion of best practices for trauma informed systems on</td>
<td>Review of Literature</td>
<td>Inpatient mental health units</td>
<td>This review concluded that few articles have been published pertaining to the inpatient</td>
</tr>
<tr>
<td>Study</td>
<td>Year</td>
<td>Sample Size/Notes</td>
<td>Intervention</td>
<td>Design</td>
<td>Research Program</td>
<td>Description</td>
</tr>
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<tr>
<td>Raja et al.</td>
<td>2015</td>
<td>N/A</td>
<td>Discussion of current trauma informed practices and areas of future research.</td>
<td>Review of Literature</td>
<td>N/A</td>
<td>This article reports that future trauma informed research should include which interventions are successful in changing negative health behaviors, the relationship between trauma survivors and their views of collaborative care, and trauma survivorship in healthcare workers.</td>
</tr>
<tr>
<td>Rivard et al.</td>
<td>2005</td>
<td>158 individuals ages 12-20</td>
<td>Implementation of the Sanctuary Model to increase participant coping and positive feelings in their environments.</td>
<td>Experimental Parallel Group</td>
<td>Residential treatment programs</td>
<td>Residential programs that implemented the Sanctuary Model were stronger on treatment environment that measured support, autonomy, and safety. Youths increased coping skills and sense of control over their lives.</td>
</tr>
<tr>
<td>Shonkoff et al.</td>
<td>2012</td>
<td>N/A</td>
<td>Discussion of currently literature and evidence regarding toxic stress and its associated effects.</td>
<td>Review of literature</td>
<td>N/A</td>
<td>This article highlights the effects of toxic stress on brain development, abnormal growth and hormone changes, and long lasting mental health symptoms associated with sustained, unresolved stress.</td>
</tr>
</tbody>
</table>
# Appendix B: Statement of Determination

## DNP Project Approval Form: Statement of Determination

**Student Name:** Rebekah Sypniewski

<table>
<thead>
<tr>
<th><strong>Title of Project:</strong> Increasing the Awareness of Trauma Informed Care in the School Setting: Giving Practitioners the Tools to Actively Participate in the Trauma Related Care</th>
</tr>
</thead>
</table>

**Brief Description of Project:** To provide the tools for school health practitioners to care more effectively for adolescents who have experienced trauma. An educational presentation will provide an evidenced-based curriculum that enforces recognition and effective resource management in order to circumvent the negative effects of trauma on the growth, development, and success of adolescents. Motivational Interviewing (MI) will act as the primary intervention reviewed for practitioners to implement into their own practices.

**A) Aim Statement:** By the fall of 2015, school health practitioners will be more knowledgeable regarding the specific care of adolescents who have experienced trauma. An evidenced based curriculum and a single, scenario based presentation will update practitioners regarding best practices and interviewing techniques. The goal of the curriculum is to increase the utilization of assessment tools and resources in order to enhance student learning and functioning within school and community settings. Practitioners will be surveyed three months after school begins to ascertain if they utilized the provided curriculum and its associated tools. The goal of the intervention is to have a 10% increase in the curriculum utilization.

**B) Description of Intervention:** School health practitioners will receive the educational content via presentation at a staff meeting. The presentation will be scenario based utilizing de-escalation and interviewing techniques such as Motivational Interviewing (MI) to depict the best practices associated with trauma informed care. Various assessment tools will be provided to the practitioners in attendance.

**C) How will this intervention change practice?** This intervention will provide more guidance and structure to interactions between school health practitioners and their students. Knowledge and utilization of pertinent resources will increase in order to provide students with a more conducive environment for learning.

**D) Outcome measurements:** Practitioners will be sent an email survey to elicit their utilization of the curriculum three months after school starts. Information regarding which tools were most utilized, when they were utilized, and how many times they were utilized will be gathered by the survey.
To qualify as an Evidence-based Change in Practice Project, rather than a Research Project, the criteria outlined in federal guidelines will be used: (http://answers.hhs.gov/ohrp/categories/1569)

☐ This project meets the guidelines for an Evidence-based Change in Practice Project as outlined in the Project Checklist (attached). Student may proceed with implementation.

☐ This project involves research with human subjects and must be submitted for IRB approval before project activity can commence.

Comments:
**EVIDENCE-BASED CHANGE OF PRACTICE PROJECT CHECKLIST** *

**Instructions:** Answer YES or NO to each of the following statements:

<table>
<thead>
<tr>
<th>Project Title: Increasing the Awareness of Trauma Informed Care in the School Setting</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>The aim of the project is to improve the process or delivery of care with established/accepted standards, or to implement evidence-based change. There is no intention of using the data for research purposes.</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>The specific aim is to improve performance on a specific service or program and is a part of usual care. All participants will receive standard of care.</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>The project is NOT designed to follow a research design, e.g., hypothesis testing or group comparison, randomization, control groups, prospective comparison groups, cross-sectional, case control. The project does NOT follow a protocol that overrides clinical decision-making.</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>The project involves implementation of established and tested quality standards and/or systematic monitoring, assessment or evaluation of the organization to ensure that existing quality standards are being met. The project does NOT develop paradigms or untested methods or new untested standards.</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>The project involves implementation of care practices and interventions that are consensus-based or evidence-based. The project does NOT seek to test an intervention that is beyond current science and experience.</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>The project is conducted by staff where the project will take place and involves staff who are working at an agency that has an agreement with USF SONHP.</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>The project has NO funding from federal agencies or research-focused organizations and is not receiving funding for implementation research.</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>The agency or clinical practice unit agrees that this is a project that will be implemented to improve the process or delivery of care, i.e., not a personal research project that is dependent upon the voluntary participation of colleagues, students and/or patients.</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>If there is an intent to, or possibility of publishing your work, you and supervising faculty and the agency oversight committee are comfortable with the following statement in your methods section: “This project was undertaken as an Evidence-based change of practice project at X hospital or agency and as such was not formally supervised by the Institutional Review Board.”</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

**ANSWER KEY:** If the answer to **ALL** of these items is yes, the project can be considered an Evidence-based activity that does NOT meet the definition of research. **IRB review is not required. Keep a copy of this checklist in your files.** If the answer to ANY of these questions is **NO**, you must submit for IRB approval.

*Adapted with permission of Elizabeth L. Hohmann, MD, Director and Chair, Partners Human Research Committee, Partners Health System, Boston, MA.

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**STUDENT NAME (Please print):**

| DNP Department Approval 5/8/14 | 3 |
Appendix C: DNP Residency Contract

DNP RESIDENCY

Student Name: Rebekah Sypniewski

Course No: N795

Semester: Spring 16

Registered Units 3

Agency: The Sonoma County School Nurse Association

Preceptor Name: Maya Missakian

Student Goals for Residency Experience:

- Create and present a trauma informed module for the Sonoma county school nurse association
- Articulate a macro-system change in practice project from beginning to end via project write-up
- Effectively lead a quality improvement activity
- Demonstrate leadership and advocacy

Student Learning Objectives:

- Identify a clinically relevant problem.
- Use analytic methods to critically appraise existing literature and other evidence to design an intervention
- Become more knowledgeable regarding the use of analytic methods to evaluate best practice models
- Analyze the links among practice, organizational, population, fiscal, and policy issues in order to effect the education of individuals

Description of Student Project: To provide the tools for school health practitioners to care more effectively for adolescents who have experienced trauma. An educational presentation will provide an evidenced-based curriculum that enforces recognition and effective resource management in order to circumvent the negative effects of trauma on the growth, development, and success of adolescents. Motivational Interviewing (MI) will act as the primary intervention reviewed for practitioners to implement into their own practices.

Approved by DNP Department 12/12
TRAUMA INFORMED CARE

Student signature/ date

Preceptor signature/ date

Agency contract verified

Faculty signature/ date

yes ___ no

Approved by DNP Department 12/12
Appendix D: Pre-Presentation Survey

**Pre-Training Questionnaire**

1. How many years have you been a practicing nurse? ________________
2. How many years have you been working with populations in the school setting? ________________
3. Do you work with Elementary, Middle School, or High School populations? ________________
4. Which school district are you affiliated with? ________________
5. What is the best email address to contact you for a follow-up questionnaire? ________________
6. Have you ever received training about working with individuals who have experienced trauma? (Yes or No) ________________
7. Have you ever received training about trauma informed care? (Yes or No) ________________
8. To your knowledge, do you work with individuals who have experienced trauma? (Yes or No) ________________

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Undecided</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
</tr>
</tbody>
</table>

Using the above numerical likert scale please respond the following items:

9. I am confident in my definition of trauma. ________________
10. I am confident in my definition of trauma informed care. ________________
11. I am confident in my ability to articulate how trauma affects children and adolescents in the school setting. ________________
12. I am confident in my ability working children and adolescents who have experienced trauma. ________________
13. I am interested in learning about trauma informed care. 

14. I will likely utilize motivational interviewing to address trauma related behaviors.

15. I will likely use the resources mentioned to make my school setting more trauma informed. 
Appendix E: Module PowerPoint

Trauma Informed Care

**Objectives**
- Define Trauma Informed Care
- Identify the need for training about trauma informed care
- Describe trauma and its various definitions
- Discuss how repetitive trauma or toxic stress affects a youth’s ability to function in schools
- Characterize the behaviors and potential side effects of trauma
- Explore interventions that may be utilized to manage the negative health behaviors associated with trauma

**Trauma Informed Care**
- According to SAMHSA’s concept of a trauma-informed approach, “A program, organization, or system that is trauma-informed:
  - Realizes the widespread impact of trauma and understands potential paths for recovery;
  - Recognizes the signs and symptoms of trauma in clients, families, staff, and others involved with the system;
  - Responds by fully integrating knowledge about trauma into policies, procedures, and practices; and
  - Seeks to actively resist re-traumatization.”

**Trauma Informed Care**
- Trauma-specific intervention programs generally recognize the following:
  - 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

**Need for Training**
- Children and adolescents who have experienced trauma are less likely to seek out services
- Interventions related to trauma are complex and multifactorial, requiring multiple management strategies
- Practitioners note that little to no education regarding trauma and its associated care
- A lack of effective guidelines and protocols makes meeting the needs of at risk youth, who have experienced trauma, nearly impossible across settings

**Defining Trauma**
- Childhood trauma has been conceptualized as a response to a negative external event or series of events which render a child “temporarily helpless” and surpass the child’s “ordinary coping and defensive operations.”
  - Perceived trauma is dependent on the development age and stage of the child or adolescent, personality traits, environment, and past experiences.
Defining Trauma

- The Diagnostic and Statistical Manual of Mental Disorders (DSM-5) defines traumatic events as those in which an individual experiences, witnesses, or is confronted with actual or threatened death or serious injury, or threatened physical integrity of self or others.

(F APA, 2015; Feith et al., 1998)

Trauma Statistics

- Children from all races and socioeconomic backgrounds experience and are impacted by trauma.
  - Research suggests that between half and two-thirds of all school-aged children experience trauma.
  - According to the National Survey of Children’s Exposure to Violence:
    - 60% of children have been exposed to violence in the last year.
    - 46% of children report being assaulted in the last year.
    - 13% of children report being physically bullied while 20% report emotional bullying in the last year.
    - 6% of children report sexual victimization in the last year.

(Feith et al., 2009; Feith et al., 1998)

Trauma Statistics

<table>
<thead>
<tr>
<th>Adverse Child or Family Experiences</th>
<th>National Prevalence</th>
<th>Study Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child abuse or neglect (in the last year)</td>
<td>44.5%</td>
<td>40.3%-48.7%</td>
</tr>
<tr>
<td>Witnessing violent behavior</td>
<td>11.8%</td>
<td>11.0%-12.6%</td>
</tr>
<tr>
<td>Domestic violence</td>
<td>11.7%</td>
<td>9.1%-14.0%</td>
</tr>
<tr>
<td>Witnessing parental conflict</td>
<td>18.8%</td>
<td>13.3%-20.2%</td>
</tr>
<tr>
<td>Living with someone with a mental health disorder</td>
<td>20.6%</td>
<td>15.0%-26.3%</td>
</tr>
<tr>
<td>Father in household</td>
<td>34.7%</td>
<td>30.6%-38.8%</td>
</tr>
</tbody>
</table>

(CEAAM, 2011)

Toxic Stress

- Prolonged stress can lead to functional changes in learning, memory, and aspects of executive functioning.
- Prolonged stress is associated with hyperactivity of the amygdala causing a decrease in mood control and increase in anxiety.
- Structural changes in the brain, associated with toxic or prolonged stress lead to excess and sustained cortisol production.

(Shonkoff et al., 2000)

Trauma and Attachment

- Individuals who have experienced trauma may feel that the world is uncertain and unpredictable.
- Their relationships can be characterized by problems with:
  - Boundaries
  - Betrayal
  - Suspiciousness
- Individuals who have experienced trauma may be socially isolated, or have challenges emphasizing or relating with others.

(Rothschild, n.d.)
Trauma and Behavior

- Individuals who have experienced trauma may demonstrate:
  - Poor impulse control
  - Self-destructive behavior
  - Aggression towards others
  - Hypervigilance

- Trauma may present with additional symptoms including:
  - Fatigue
  - An increased heart rate
  - Frequent stomach aches
  - Frequent headaches
  - Sleep disturbances
  - Changes in eating habits
  - Chronic fatigue

(Rudolph, 2014)

Trauma and Risky Behaviors

- Populations who have experienced multiple traumas are at a higher risk for:
  - Tobacco use
  - Alcoholism
  - Illicit drug use
  - Attempted suicide
  - Sexually transmitted disease
  - Obesity

(Gladwell et al., 2012; Malosh et al., 2014; Mitchell & O'Connor, 2013)

Trauma and Substance Abuse

- Adolescents who have experienced trauma are 1.5 times more likely to use illicit substances, especially marijuana, than their non-traumatized peers
- Repetitive trauma exposure disrupts a person's ability to self-regulate leading to a heightened stress sensitivity and vulnerability to self-medicate through substance use
- Increased autonomy of adolescents, especially those who engage in substance use, may place the adolescent at an increased risk for further trauma
- In 2013, an estimated 2.2 million adolescents aged 12 to 17 were current illicit drug users and 1.6 million adolescents were past month binge drinkers
- Additionally, in 2013 22.7 million individuals aged 12 or older needed treatment for an illicit drug or alcohol use disorder

(Gladwell et al., 2012; SAMSHA, 2014; Sorensen et al., 2012)

Trauma and Truancy

- Truancy is identified as one of the top 10 most concerning problems within the school system
- Children and adolescents who have experienced significant traumas are at a greater risk for serious delinquency than their counterparts
- In a national survey of adolescents in the United States, “11% of 8th graders, 10% of 10th graders, and 35% of 12th graders reported skipping 1 or more days of school during previous 30 days”
- Approximately 50% of students, older than 14, who suffer from mental illness drop out of school
- This is the highest dropout rate of any disability

(Henry & Harings, 2010; NAM, 2006; Van der Aa et al., 2005)

Violence in Schools

- In the US, approximately 80% of school age children have witnessed verbal aggression and another 75% have witnessed physical violence in the school setting
- According to the National Survey of Child Exposure to Violence 1
  - 41.2% or 2 out of five children were physically assaulted
  - Of those assaulted, 37.3% were assaulted by a peer in the last year with an even higher lifetime victimization of 27.8%
- Witnessing repetitive school violence or trauma may generate feelings of insecurity that can lead to delinquency or disengagement from the school setting

(Finkelhor et al., 2013; Grogan-Kaylor, 2006; Janss et al., 2008)

What can be done?????

INTERVENTIONS TO ASSIST IN ENGAGING WITH CHILDREN AND ADOLESCENTS WHO HAVE EXPERIENCED TRAUMA.
**Play Therapy**

- “Play is the child’s language and toys are are the child’s words.”
- Toys allow for creative and emotional expression, testing of limits, and role-playing reality, and play therapists have a sound theoretical rationale for selecting and placing toys and materials in a play therapy playroom.

(Heney & Morrison, 2009)

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**Play Therapy Techniques**

- **Color your life**
  - Give the participant a piece of paper and a variety of crayons or marker options. Ask them to pick a color that expresses how they feel. This may take some prompting, for example:
  - The first crayon picked is red. I asked him what emotion he thought of when he sees red. He stated that he didn’t know. I asked him if he has ever seen someone turn red in the face. He said yes. I then asked him what emotion he thought that person was feeling. He stated the person was mad, red is mad.
- **Balloons of Anger**
  - Blow up one balloon and tie it. With it tied, ask how easy the air can be removed. Blow up another balloon and I pinch it with your fingers, let out some of the air and discuss how the participant can work on letting anger out like the balloon holding.

(Hall et al., 2002)

---

**Motivational Interviewing**

- A Brief Motivational Intervention (BMI) is “a low-threshold, low demand intervention” that may encourage difficult-to-reach individuals to reduce risky behaviors and make better use of available services.

(Boss et al., 2007)

---

**Motivational Interviewing**

- The hallmark of motivational interviewing is establishing an empathetic, collaborative relationship between practitioner and client.
- Motivational interviewing taps into an individual's intrinsic strength in order to resolve ambivalence and foster more positive health outcomes.

(Kosa & Dufresne, 2009; Miller & Meyer, 2006; Sirois et al., 2012)

---

**Motivational Interviewing**

- The principles of motivation interviewing are comprised of:
  - expressing empathy
  - utilizing non-judgmental language to discuss negative health behaviors and change
  - developing discrepancy
  - exploring the gap between the student's current behavior and the behavior or outcome they desire
  - involving with resistance
  - ambivalence to change is natural; it is critical to avoid confrontation at this stage as it may cause the adolescents to become defensive and break trust
  - supporting well-being
  - applied healthy or positive behaviors

(Frey et al., 2012; Audman, 2004; Miller & Meyer, 2006)
Motivational Interviewing
- Motivational interviewing is comprised of two phases
- Phase 1 involves resolving ambivalence towards change
- Phase 2 occurs after the motivation to change is activated
  - asking open-ended questions
  - affirmation of strengths or positive behaviors
  - reflective listening
  - and summarizing or rephrasing what the client has expressed

(Frey et al., 2012; Jackson, 2012; Miller & Moyen, 2006)

Accept Ambivalence
- We guide patients towards decision making that is in line with their own goals by helping them explore and resolve their own ambivalence.
- Merely developing the discrepancy is a powerful way to help patients make better choices.
  - “It sounds like on one hand you are saying that you want to finish school and get good grades and yet on the other hand a part of you wants to stay home and be with your friends. Do I have that right?”
  - Be patient and wait for a reply

(Casson, 2014; Miller & Moyen, 2006)

Confidence Ruler
- Utilize visual cues to assess readiness for change
  - Follow up questions should be geared towards why the participant has not picked a higher or lower number on the ruler.

On a scale of 0 to 10, how important is it for you right now to change?

<table>
<thead>
<tr>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not at all</td>
<td>Extremely Important</td>
<td>Important</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

On a scale of 0 to 10, how confident are you that you could make this change?

<table>
<thead>
<tr>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not at all</td>
<td>Extremely</td>
<td>Confident</td>
<td></td>
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</tr>
</tbody>
</table>

(Miller & Rollnick, 2013)

Effective Strategies for MI
- If you find yourself talking, — Stop and ask a pertinent question
- Rephrase relevant things the participant said to you:
  - Once you re-phrase, PAUSE for a reply to confirm understanding
  - Use the participant’s own language
  - Be aware of your body language and non-verbal cues
  - Be present

(Casson, 2014)

Ineffective Strategies for MI
- Taking sides in the participant’s ambivalence
- Threatening bad outcomes
  - “If you don’t stop consuming alcohol...”
  - “If you do not attend your course regularly...”
- Giving advice assumes that the participant simply does not know enough
- Offering one idea after another = exhaustion

(Casson, 2014)

Restructuring Thoughts
- The Double Standard Method
  - Teach the participant to talk to themselves in a compassion way, similar to how you would talk to a friend or loved one, instead of putting themselves down.
- Thinking in Shades of Gray
  - Avoid thinking in all or nothing extremes. Use scales of 0-100 to discuss situations that may not have gone as well as planned or hoped.

(Burns, 1980)
Restructuring Thoughts

- Re-attribution
  - When a participant is blaming him or herself for a problem, discuss all the factors that led up to the decision or outcome. For visual representation, draw a pie chart of the contributing factors and their respective weight in the situation.

- Define Terms
  - When a participant labels themselves as a “loser” or bad kid,” have them define what that actually means. Often times, participants either cannot articulate a definition or do not feel they fit the provided description.

(Peterson, 1980)

Key Elements of Trauma Informed Systems

- Screen for trauma exposure and symptoms routinely
- Build on the strengths of children and families who have been impacted by trauma
- Collaborate across systems for holistic trauma care
- Support staff from secondary trauma and burnout
- Provide resources for:
  - Children and families regarding trauma treatment options
  - Children and families regarding trauma support networks
  - Colleagues and staff about evidenced-based interventions and toolkits for participation in trauma informed care

McFerrin & McElwain, n.d.

Objectives

- Define Trauma Informed Care
- Identify the need for training about trauma informed care
- Describe trauma and its various definitions
- Discuss how repetitive trauma or toxic stress affects a youth’s ability to function in schools
- Characterize the behaviors and potential side effects of trauma
- Explore interventions that may be utilized to manage the negative health behaviors associated with trauma

References

Appendix F: Trauma-Informed Vignette

**Trauma Informed Care In Action**

The following case examples illustrate the difference between school staff’s response to students in a trauma-informed system, compared to a traditional approach.

**Case 1**: Tom is walking to lunch in the cafeteria when his classmate Marc bumps into him in the crowded hallway. The students' eighth grade math teacher, Ms. Clark, hears Tom and Marc begin to yell at one another and steps into the hall just as Tom punches Marc in the face. Ms. Clark and her colleague Mr. Jones step in to break up the fight. This is the third fight Tom has been in this school year.

<table>
<thead>
<tr>
<th><strong>Traditional Approach</strong></th>
<th><strong>Trauma Informed Approach</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Initial Response</strong></td>
<td>Ms. Clark and her colleague verbally reprimand Tom and Marc and call for the school security guard. The boys are escorted to the principal’s office by the security guard and Ms. Clark returns to her classroom.</td>
</tr>
<tr>
<td></td>
<td>Ms. Clark and her colleague separate Tom and Marc and bring them each to an empty classroom to calm down. Ms. Clark has developed a strong relationship with Tom and, once he has calmed down, asks him “what’s going on?” It takes a few minutes, but Tom eventually opens up to let Ms. Clark know that he is feeling “on edge” due to instability and violence in his home life. While Ms. Clark is talking with Tom, Mr. Jones deescalates Marc and begins a conversation with him about his behavior.</td>
</tr>
<tr>
<td><strong>Disciplinary Action</strong></td>
<td>Both students meet with the principal who quickly gathers the facts and determines that the level of severity of the altercation warrants a 3-day suspension for Marc (as this was his first offense) and a 9-day suspension for Tom. Tom is labeled as a “repeat offender” and told that he will be expelled for his next offense. Both students’ parents are called and told that their child has a discipline problem.</td>
</tr>
<tr>
<td></td>
<td>Following their individual conversations, Ms. Clark, Mr. Jones, Tom, and Marc meet with the school principal. In a non-confrontational conversation, both students apologize for over-reacting. Consistent with school discipline policies, both students receive an “in school” suspension; Tom for 3 days (as this was his first offense) and Marc for 6 days (as this was his third offense).</td>
</tr>
<tr>
<td><strong>Short and Long-Term Implications</strong></td>
<td>Marc misses three days of class and Tom misses nine days of class. As a result, both fall behind in their coursework and their grades suffer. Tom and Marc feel that the school has labeled them, and their parents begin to feel that they are working in opposition to the school staff, as</td>
</tr>
</tbody>
</table>
| | During their time in in-school suspension, Tom and Marc are able to complete their coursework while receiving extra supports. Ms. Clark and the school counselor set aside time to meet together with Tom during his in-school suspension to discuss the instability and violence Tom is
opposed to cooperating to better meet their children’s needs.

experiencing at home, and they learn that Tom was recently placed in the care of his grandmother due to his father’s physical abuse of Tom and his mother. The school counselor reaches out to Tom’s grandmother to involve her in developing a behavioral plan for Tom at school, and Tom is referred for therapeutic services at a local community mental health agency. Ms. Clark also encourages Tom to join an after-school mentoring program for young men focused on social skills development and academic support. Over time, Tom’s behavior and his grades begin to improve.

Appendix G: OARS Practice Worksheet

**OARS Practice Sheet**

Rate client motivation to change (0-10): PRE____ POST ____

<table>
<thead>
<tr>
<th>OARS Tally</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open-ended</td>
<td></td>
</tr>
<tr>
<td>Questions</td>
<td></td>
</tr>
<tr>
<td>Affirmations</td>
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</tr>
<tr>
<td>Reflective</td>
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</tr>
<tr>
<td>Statements</td>
<td></td>
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<tr>
<td>Summary Statements</td>
<td></td>
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<tr>
<td>--------------------</td>
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</table>
Appendix H: Trauma-Informed Resources Handout

Trauma Informed Resources and Tool Kits

National Resources
- The National Child Traumatic Stress Network (http://www.nctsn.org/) provides resources for a variety of audiences, including school personnel. A “Trauma Toolkit for Educators” (http://www.nctsn.org/sites/default/files/assets/pdfs/Child_Trauma_Toolkit_Final.pdf); information about responding to a school crisis, school safety, the effects of trauma, disaster response, and service interventions; and a list of web resources are available.

- The National Center for Trauma-Informed Care (http://www.samhsa.gov/nctic/about.asp) is operated by the Substance Abuse and Mental Health Services Administration (SAMHSA). The website provides information on trauma-informed care, links to models that could be adapted for implementation by schools, and information on training and technical assistance support.

Trauma Informed Models
- Sanctuary Model (http://www.sanctuaryweb.com/schools.php): This model focuses on changing organizational culture to be more sensitive to the impacts of trauma on individuals and families served as well as staff members.

- Risking Connections® (http://www.riskingconnection.com/): This trauma-informed model emphasizes the importance of “RICH” relationships (i.e., relationships marked by respect, information sharing, connection, and hope) and self-care for service providers working with individuals who have experienced trauma.

Classroom Tools
- Southwest Michigan Children’s Trauma Assessment Center’s School Intervention Project Curriculum (http://homepages.wmich.edu/~atchison/School%20Intervention%20Project%20CD%20Revised%20%28SIP%29.pdf): This resource includes background information on trauma and trauma informed principles and provides several trauma-informed lesson plans that can be adapted for use with different age groups.

Local Resources
- Sonoma County ACEs Connection (http://www.acesconnection.com/g/sonoma-county-aces-connection/home): This organization acts a virtual meeting space for individuals to connect and share trauma informed resources and tools.

  + Sonoma County was selected to receive Mobilizing Action for Resilient Communities (MARC) funding to support efforts to prevent childhood trauma and mobilize action aimed at promoting resilience and preventing and reducing Adverse Childhood Experiences (ACEs). The two-year MARC project includes funding to strengthen the Sonoma County ACEs Connection (SCAC) coalition, expand community training opportunities, and provide technical assistance on effective strategies, evaluation of process and progress, and shared learnings.
Appendix I: Post-Presentation Survey

**Post-Training Questionnaire**

Using the above numerical likert scale please respond the following items:

1. I am confident in my definition of trauma. __________
2. I am confident in my definition of trauma informed care. __________
3. I am confident in my ability to articulate how trauma affects children and adolescents in the school setting. __________
4. I am confident in my ability working children and adolescents who have experienced trauma. __________
5. I am interested in learning about trauma informed care. __________
6. I will likely utilize motivational interviewing to address trauma related behaviors. __________
7. I will likely use the resources mentioned to make my school setting more trauma informed. __________

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Appendix J: Nurse Demographic Information

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<th>Years of Nursing Experience</th>
<th>Years of School Nurse Experience</th>
<th>Employed in an Elementary, Middle, or High School</th>
<th>School District</th>
<th>Previous Trauma Training?</th>
<th>Previous trauma informed care training?</th>
<th>Do you work with individuals who have experienced trauma?</th>
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<td>2</td>
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<td>4</td>
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<td>3</td>
<td>Elementary &amp; Middle</td>
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## Appendix K: GANTT Chart

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<th>2014</th>
<th>2015</th>
<th>2016</th>
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<tr>
<td>N711</td>
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<td></td>
<td></td>
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<tr>
<td>Informal Project Proposal</td>
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<td>Advisor Approval</td>
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<td></td>
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<td>Network with Potential Sites</td>
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<td>Wait for Site Replies</td>
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<td>N749</td>
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<td>Submit Manuscript</td>
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<td>Submit Project Prospectus</td>
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<tr>
<td>Site Approval</td>
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<td>Craft Toolkit</td>
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<td>Complete Pre-Assessment</td>
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<td>Present Toolkit</td>
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<td>Take 795</td>
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<td>Evaluate Project Effectiveness</td>
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Appendix L: Six-Week Post Presentation Follow-Up Survey

Trauma Informed Training Follow-Up

Please complete the following questions regarding the Trauma Training on January 19th, 2016.

1. Since the presentation, I have felt more confident in working with children and adolescents who have experienced trauma?

   1  2  3  4  5

   Never ☐ ☐ ☐ ☐ ☐ Always

2. I have utilized the motivational interviewing techniques presented.

   1  2  3  4  5

   Never ☐ ☐ ☐ ☐ ☐ Always

3. If the motivational interviewing was not used, please describe why:

   - Lack of appropriate clinical scenario
   - Lack of time
   - Lack of confidence in skill
   - Desire additional training
   - Mental Health Professionals intervened
   - Other

4. I have utilized the play therapy techniques presented.

   1  2  3  4  5

   Never ☐ ☐ ☐ ☐ ☐ Always
5. If play therapy was not used, please describe why:
   ○ - Lack of appropriate clinical scenario
   ○ - Lack of time
   ○ - Lack of confidence in skill
   ○ - Desire additional training
   ○ - Mental Health Professionals intervened
   ○ - Other

6. I have utilized the cognitive restructuring techniques presented.
   
   1  2  3  4  5

   Never  ○  ○  ○  ○  ○  Always

7. If cognitive restructuring was not used, please describe why:
   ○ - Lack of appropriate clinical scenario
   ○ - Lack of time
   ○ - Lack of confidence in skill
   ○ - Desire additional training
   ○ - Mental Health Professionals intervened
   ○ - Other

8. I utilized the provided resources and tool kits.
   
   1  2  3  4  5

   Never  ○  ○  ○  ○  ○  Always
9. If you did not look at the provided resources, please describe why:
   - Lack of time
   - Lack of interest
   - Lack of applicability to my work
   - Other

10. Additional comments:

Your answer
Appendix M: SWOT Analysis

SWOT Analysis

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
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<tbody>
<tr>
<td>• Evidenced Based</td>
<td>• Lack of screening time</td>
</tr>
<tr>
<td>• Potential to be multidisciplinary</td>
<td>• Lack of consistency in practitioners</td>
</tr>
<tr>
<td>• Legislative Support in base in other states</td>
<td>• Lack of incentives for practitioners to change practice</td>
</tr>
<tr>
<td>• Little revenue needed to implement</td>
<td>• Lack of time for practitioners to attend training</td>
</tr>
<tr>
<td>• Well documented effects on ACEs on negative health and social outcomes</td>
<td>• Little research reflects the actions taken to integrate trauma informed care into care delivery systems</td>
</tr>
<tr>
<td>• Effectiveness of school health as a preventative measure</td>
<td>• Unknown costs associated with project implementation</td>
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</table>

<table>
<thead>
<tr>
<th>Opportunities</th>
<th>Threats</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Change the care delivery model of a vulnerable population</td>
<td>• Practitioner push-back</td>
</tr>
<tr>
<td>• Increase awareness of trauma-informed care and its resources</td>
<td>• Practitioners may feel unprepared for the new role</td>
</tr>
<tr>
<td>• Decrease truancy</td>
<td>• Lack of experienced mentors or experts</td>
</tr>
<tr>
<td>• Decrease substance abuse in the population</td>
<td>• Idea that not all practitioners work with people at risk for ACEs</td>
</tr>
<tr>
<td>• Decrease the number of adolescents and young adults imprisoned</td>
<td>• Institution push-back related to increased time needed with students</td>
</tr>
<tr>
<td>• Decrease the stigma surrounding ACEs</td>
<td>• Lack of long-term ownership and sustainability of the project</td>
</tr>
<tr>
<td>• Increase number of graduating adolescents (diploma or GED)</td>
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</tr>
<tr>
<td>• Improving quality of life for impoverished individuals and communities</td>
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Appendix N: Project Budget

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<td><strong>Total</strong></td>
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## Appendix O: Pre-Intervention Data

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<th>I am confident in my ability to articulate how trauma affects children and adolescents in the school setting</th>
<th>I am confident in my ability working children and adolescents who have experienced trauma</th>
<th>I am interested in learning about trauma informed care</th>
<th>I will likely utilize motivational interviewing to address trauma related behaviors</th>
<th>I will likely use the resources mentioned to make my school setting more trauma informed</th>
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### Appendix P: Immediately Post-Intervention Data

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<th>I will likely use the resources mentioned to make my school setting more trauma informed</th>
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</table>
Appendix Q: Six-Weeks Post-Intervention Data

1. Since the presentation, I have felt more confident in working with children and adolescents who have experienced trauma?
   (8 responses)

2. I have utilized the motivational interviewing techniques presented.
   (8 responses)

3. If the motivational interviewing was not used, please describe why:
   (7 responses)
4. I have utilized the play therapy techniques presented. (8 responses)

5. If play therapy was not used, please describe why: (6 responses)

6. I have utilized the cognitive restructuring techniques presented. (8 responses)
7. If cognitive restructuring was not used, please describe why:  
(5 responses)

- Lack of appropriate clinical scenario: 20%
- Lack of time: 20%
- Lack of confidence in skill
- Desire additional training
- Mental Health Professionals intervened
- Other

8. I utilized the provided resources and tool kits.  
(8 responses)

- Never: 2 (25%)
- 1 (25%)
- 2 (25%)
- 3 (25%)
- 4 (50%)
- 5 (0%)

9. If you did not look at the provided resources, please describe why:  
(4 responses)

- Lack of time
- Lack of interest
- Lack of applicability to my work
- Other

100%
### Appendix R: Qualitative Responses

#### 10. Additional comments: (5 responses)

<table>
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<tr>
<th>Comment</th>
<th>Details</th>
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<tr>
<td>Further training would be helpful, as well as need acknowledged by administrative staff.</td>
<td>It was an excellent presentation. I would like more training and role-playing with these techniques. I felt grateful to have been trained and be on the cutting edge of therapeutic processes in the public health arena. I was recently at an event to raise awareness of the Alliance Medical Clinic in Healdsburg, CA. Dr. George Flores from the Calif. Endowment was there and in talking with him, he asked if I had heard of Trauma Informed Care. I was able to say I had due to your presentation as well as my recent education with ACE's from the local public health department last May. Thanks so much.</td>
</tr>
<tr>
<td>I'm writing a paper for my graduate program on trauma informed care, inspired by your lecture. I have also looked into ACES, and will be attending a presentation by Dr. Macey. Thank you!</td>
<td></td>
</tr>
<tr>
<td>I have spent much of the time, since our meeting doing vision and hearing screenings for different age groups, so my time with kids was more limited than normal</td>
<td></td>
</tr>
<tr>
<td>I am just back from being out of the country for the past month - so away from work and away from being able to apply any of your resources!</td>
<td></td>
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Appendix S: Pre and Immediately Post-Intervention Data Comparison

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<th></th>
<th>Pre</th>
<th>Post</th>
<th>Pre</th>
<th>Post</th>
<th>Pre</th>
<th>Post</th>
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<td>4.7</td>
<td>4.4</td>
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<td>I am confident in my ability to articulate how trauma affects children and adolescents in the school setting</td>
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<tr>
<td>I am interested in learning about trauma informed care</td>
<td>t- 2.33</td>
<td>t- 4.02</td>
<td>t- 3.21</td>
<td>t- 2.38</td>
<td>t- 1.41</td>
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<td>I will likely utilize motivational interviewing to address trauma related behaviors</td>
<td>p- 0.04</td>
<td>p- 0.003</td>
<td>p- 0.011</td>
<td>p- 0.041</td>
<td>p- 0.192</td>
<td>p- 0.268</td>
<td>p- 0.808</td>
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<td>I will likely use the resources mentioned to make my school setting more trauma informed</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<td>No</td>
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<th>Disagree</th>
<th>Undecided</th>
<th>Agree</th>
<th>Strongly Agree</th>
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