TRAUMA - AFFECTED STUDENTS IN ADULT EDUCATION: PROMOTING AWARENESS AND TRAUMA-RESPONSIVE LEARNING ENVIRONMENTS

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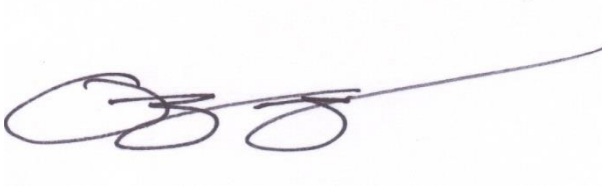
This seminar paper has been approved in partial fulfillment of the MSE-Adult Ed degree.



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## Abstract

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Adult educators have increasingly been aware, particularly during the recent economic downturn, that the chronic stress adults bring to the classroom affects regular attendance and sustained focus, both of which affect progress. Teachers recognize the value of their classrooms as safe venues for adults to practice healthy coping skills and to provide supports, but they are not always comfortable knowing how to respond to the emotional needs of students. While teachers are not therapists, they can be educated in approaches that promote emotional and psychological well-being, and incorporate strategies into the classroom that help students to learn more efficiently.

Technical colleges and other post-secondary institutions throughout the United States are facing increasing pressure to meet the needs of students struggling to overcome stressors including trauma. According to a report by the American College Health Association (2013), more than 30% of post-secondary students reported feeling depressed or anxious. Trauma-informed practice crosses all disciplines and can enhance an educator's practice in the classroom. Recognizing that trauma is something that stays in the body can help instructors see their students as physical, as well as, cognitive beings.

## Chapter One: Introduction

The National Child Traumatic Stress Network in the United States reported that up to 40% of students experienced, or were witness to, traumatic stressors in their lifetimes (Brunzell, Waters, & Stokes, 2015). Many adult basic education students—immigrants and American-born as well—had been affected by chronic stress, trauma, and adverse life conditions which had severely impeded learning. Refugees brought an even more complex background, often marked by war, torture, and forced resettlement (Balliro, 2012). According to Balliro (2012), "being knowledgeable about how these events affect the brain, body and learning can help us improve our practice by making conscious choices-proactively and responsively-about how to plan for and respond to our students" ( p.2).

There might be a proven link between healthy socioemotional development and academic success. Some of the most persistent changes in the brain involve the reduced capacity to acquire new cognitive information and retrieve stored information—both essential for effective functioning within our current educational system (Perry, 2006). In order to achieve academic success, school personnel serving children who have been exposed to trauma must deal with the challenge that comes with an activation of the brain's stress response. Many of these children grew up disliking school and they soon gave up on themselves and the process of academic learning. But many grew up to become adult learners who eventually needed to return to school. It is important for educators to better understand that, according to Perry's (2006) research, nearly one-third of the adult population brought a history of abuse, neglect, developmental chaos, or violence to the classroom.

## Research Questions

What factors increase success among college students with Adverse Childhood Experiences (ACE)? How can teachers in adult education create more trauma-responsive learning environments? Do trauma-responsive teaching practices affect persistence in adult education? How can practitioners on technical college campuses promote mental health with their students?

## Problem Statement

The purpose of this study is aimed at building educator awareness of the effects of trauma on the brain, and how mental health challenges are currently impeding college persistence rates in many young adult learners. The secondary purpose of this study is to identify trauma-informed teaching practices and their effect on college and persistence in young adult learners who have experienced trauma earlier in life.

## Purpose of the Study

Adults who have experienced adverse childhood experiences eventually need to return to school for a variety of reasons. It is important for individuals who experience trauma to receive therapy by qualified psychologists, psychiatrists, counsellors, and or social workers; however, many families lack access, motivation, and ability to successfully participate in therapy and follow treatment plans (Brunzell, Waters, & Stokes, 2015). To follow is an analysis of how trauma affects the brain and the learning process and what effects trauma-informed teaching techniques have in adult education and on students' retention in technical colleges. In addition, information regarding the effects of trauma and how this may or may not affect classroom learning is provided. Educators are provided with best practices and resources on how to create trauma-informed learning environments.

## Significance of the Study

The number of college students struggling with mental illness such as depression and anxiety is growing (National Center for Educational Statistics, 2014). Trauma and post-traumatic stress represent a significant mental health issue affecting this population. In particular, we know very little about the mental health conditions of the nation's nearly 11 million technical college students, who attend institutions where resources tend to be scarce and mental health services are often lacking (National Center for Educational Statistics, 2014). According to study findings, both education and stigma reduction strategies have been effective at reducing stigma and have improved beliefs about empowerment, attitudes towards treatment seeking, and intentions to seek treatment for mental health among young adults and adults alike (Kosyluk, et. al, 2016).

This research study will benefit adult education practitioners by providing resources and best practices to teachers, administrators, and counsellors who provide educational and mental health services to adult learners as they persist through technical and vocational programs. In addition, this research will encourage mental health awareness by looking at it in a community context. According to the researchers at Wisconsin Hope Lab (Eisenberg, Goldrick-Rab, Ketchen-Lipsen, & Broton, 2016), "As mental illness can impair academic success and quality of life, there is a clear need for greater attention to and resources for mental health services and programs on community college campuses" (p. 1). In addition to the direct effect on individual well-being, there were also substantial downstream consequences, including higher utilization of medical care and social services (e.g., criminal justice, unemployment insurance), reduced human capital (e.g., education, job skills, and productivity), unhealthy coping behaviors (e.g., substance use and risky sexual behavior), problems in interpersonal relationships, and increased

risk of violence and incarceration (Eisenberg, et al.,2016). According to a recent Institute of Medicine report, the total cost to society of mental disorders among people under age 25 was approximately $250 billion each year (O'Connell, Boat & Warner, 2009). Through awareness and prevention, much like the work modeled by mental health leaders in Wisconsin, adult educators can work together to break down the barriers and stigma attached to mental health and illness.

**Definitions of Terms**

*Adult Basic Education (ABE):*

The term means an instructional program for the undereducated adult planned around those basic and specific skills most needed to help him or her to function adequately in society (Legal Information Institute, n.d.).

*Career and Technical Education:*

A term applied to schools, institutions, and educational programs that specialize in the skilled trades, applied sciences, modern technologies, and career preparation. It was formerly (and is still commonly) called vocational education; however, the term has fallen out of favor with most educators (Abbott, 2014).

*Educational Attainment:*

Educational attainment refers to the highest level of education completed regardless of current enrollment in school (Federal Interagency Forum on Child and Family Statistics, 2014).

*Mental Health:*

A state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make

contributions to his or her community. It is estimated that only about 17% of U.S adults are in a state of optimal mental health. There is emerging evidence that positive mental health is associated with improved health outcomes (Centers for Disease Control and Prevention, 2013).

*Toxic Stress:*

Toxic Stress is a term used to describe traumatic experiences in childhood which threaten healthy brain development and are associated with lifelong health and social problems. Researchers have identified toxic stress as a key contributor to epidemics of poverty, violence and disease (Pritzker, Schwartz, Scully & Redford, 2015).

*Trauma:*

This term is used to describe experiences or situations that are emotionally painful and distressing, and that overwhelm one's ability to cope, leaving one powerless (Center for Nonviolence and Social Justice, 2014).

*Young Adult Learners:*

People ages 18–24 who are not fully independent and have not completed the transition to adult roles in families, households, or the workforce. Transitioning to adulthood is generally signaled by particular life events that are markers of independence, including finishing school, starting a full-time job, leaving the home, getting married, or becoming a parent for the first time (Federal Interagency Forum on Child and Family Statistics, 2014).

**Delimitations of Research**

The Karrmann Library at the University of Wisconsin-Platteville between August, 2016 and April, 2017, provided the reference materials used in this paper. Numerous online search engines provided by Google Scholar and EBSCO host were also used. Key searches used were:

"Trauma-Informed Education," "Trauma- Responsive Teaching Strategies," "Managing Stress in Adult Basic Education," " Managing Stress and Learning," "Persistence in Adult Education," "Brain Development and Trauma," "Effects of Trauma," and "Trauma and Young Adults."

**Method of Approach**

The first review of literature was conducted on the prevalence and long-term effects that trauma had on the brain of adult learners and how Wisconsin has been a leading state in increasing awareness and prevention. Search terms included: "effect of trauma on the adult brain", "brain development and trauma", and "trauma-informed teaching in higher education". In addition, a literature review was conducted of America's technical colleges and the effect that trauma plays in the adult learner's persistence in technical education. Search terms were: "managing stress and learning," "trauma-informed teaching in community colleges" and "trauma and persistence in higher education". Another review of literature analyzed best practices for post-secondary practitioners in creating trauma–responsive teaching approaches and learning environments. Search terms included: "trauma-informed teaching in higher education" and "trauma-responsive teaching strategies in higher education". Findings were summarized and recommendations were made in chapter three.

## Chapter Two: Review of Related Literature

The formation of trauma-responsive teaching priorities and strategies in adult education for this paper were based on a review of relevant literature. There are several topics commonly associated with trauma and post-secondary educational environments.

- Prevalence and long-term effects of childhood trauma.
- The linkage of stress and trauma on the adult brain.
- Wisconsin's role in increasing awareness about these effects and how this data can help to inform prevention.
- A current look at mental health and how this affects persistence in adult education.
- An analysis of key elements and best practices for adult education practitioners to consider in order to create trauma-responsive environments in classrooms.

### Prevalence and Long-Term Effect of Trauma

A growing interest in investigating the long-term effects of childhood trauma was sparked in the 1990's. The well-known Adverse Childhood Experiences (ACEs) study (Felitti et al.,1998) was based out of Kaiser Permanente's San Diego Health Appraisal Clinic in an obesity clinic. Kaiser partnered with the Center for Disease Control in order to look at the relationship between health risk behavior and being prone to disease and other chronic illnesses in relationship to ACEs. They looked at how adverse childhood experiences were linked to health risk behaviors and adult diseases. ACEs were defined as adverse childhood experiences that fit into ten categories. Five were personal-physical abuse, verbal abuse, sexual abuse, physical neglect and emotional neglect. Five were related to

family members: a parent who is an alcoholic, a mother who is a victim of domestic violence, a family member in jail, a family member diagnosed with mental illness, and the disappearance of a parent through divorce, death, or abandonment. Each type of trauma counted as one. A person who had been physically abused, with one alcoholic parent, and a mother who was physically abused had an ACE score of three. Although there are many other types of childhood trauma, the ACE study included only those ten childhood traumas because those were mentioned as most common by Kaiser Clinic; those traumas were also well-studied individually in the research literature.

Research on Adverse Childhood Experiences (ACE) was important for three reasons (Felitti et al., 1998). First, negative childhood experiences were related to major risk factors for the leading causes of illness and death and poor quality of life for adults (Felitti et al., 1998). Secondly, ACEs were common among all segments of the population. Lastly, ACEs were connected. People who reported any ACE were likely to experience adversity in other categories (Felitti et al., 1998).

The ACEs study uncovered a stunning link between childhood trauma and the chronic diseases people developed as adults. This included heart disease, lung cancer, diabetes, many autoimmune diseases and depression. Violence, being a victim of violence, and suicide have also been linked with traumatic childhood experiences (Felitti et al., 1998).

The first ACEs research results were published in 1998 and showed that:

- Childhood trauma was very common, even in employed, white, middle-class, college-educated populations;
- There was a direct link between childhood trauma and adult onset of chronic disease, as well as depression, suicide, being violent, and a higher incidence of being a victim of violence;
- More types of trauma increased the risk of health, social, and emotional problems;

- People usually experienced more than one type of trauma—rarely it was only sex abuse or only verbal abuse;
- Two-thirds of the 17,000 people in the ACE study had an ACE score of at least one—87% of those had more than one.

The study's researchers found a correlation between one's ACE score and a person's risk for chronic disease. According to the research, the higher one's ACE score, the higher one's risk for experiencing health and social problems. As one's ACE score increased, so did one's risk of disease, social challenges, and emotional problems. What made the ACE study such a landmark study was its correlation between the number of ACEs and the risk factors/adult disease. This study included 17,000, mostly white, upper-middle class college-educated San Diegans with jobs who belonged to the Kaiser Permanente health maintenance organization. With an ACE score of 4 or more, the likelihood of chronic pulmonary lung disease increased 390%; hepatitis, 240%; depression, 460%; suicide, 1,220%.

Since 2010, many states, including Wisconsin, have been collecting information about Adverse Childhood Experiences (ACEs) through the Behavioral Risk Factor Surveillance System (BRFSS) (Centers for Disease Control and Prevention Division of Violence Prevention, 2016). The BRFSS is an annual, state-based, random-digit-dial telephone survey that collects data from non-institutionalized U.S. adults regarding health conditions and risk factors (2016). Since then, Wisconsin Department of Children and Families and various private organizations have taken significant steps to increase awareness about the long-term negative health effects of ACEs and how this data can help to inform early mitigation (Centers for Disease Control and Prevention Division of Violence Prevention, 2016).

The Centers of Disease Control and Prevention Division of Violence Prevention (2016), identified key innovative ways in which Wisconsin collected the ACE data. First, Wisconsin formed valuable partnerships in order to identify methods to collect ACE data. For example, in 2009, the Children's Trust Fund started the first ACE and Trauma workgroup, which included 45 representatives from child welfare, corrections, mental health, and health care sectors. The diversity in this group helped plan data collection, brainstorm funding strategies, and collaborated to gain support across the various entities (Center for Disease Control and Prevention Division of Violence Prevention, 2016). Secondly, Wisconsin increased support from leaders from a variety of sectors such as Wisconsin's First Lady, Tonette Walker, who started the "Fostering Futures" initiative, which utilized child maltreatment research to inform child welfare services (Centers for Disease Control and Prevention Division of Violence Prevention, 2016).

Wisconsin shares its ACE findings, which keeps the issue of child maltreatment at the highest priority of Wisconsin's prevention planning. Access to this state-specific data helped communities to realize that child maltreatment happens in all neighborhoods and families, and this helped to localize the problem in order to make it easier to promote action. An example of this training concept was illustrated when the Children's Trust Fund participated in a distribution and online publication of ACE findings and recommendations. Additionally, ACE trainers presented Wisconsin's ACE findings and recommendations for action in multiple locations around the state (Centers for Disease Control and Prevention Division of Violence Prevention, 2016).

The last key to success in Wisconsin came when researchers identified gaps in knowledge and practice through the ACE data they had collected and they kept practitioners

focused on the same goal, which contributed to the collaboration that was happening across multiple entities (Centers for Disease Control and Prevention Division of Violence Prevention, 2016). According to a Centers for Disease Control and Prevention Division of Violence Prevention (2016) case study, an ACE score of four or more was highly-correlated with incarceration of a family member. In addition, based on the results of this same case study, of the residents who reported four or more ACEs, nearly 30% received Badger Care, Wisconsin's Medicaid Program. Because of this, Wisconsin has

- developed services to support prisoners with trauma histories;
- developed services to lessen exposure to additional ACEs, providing support for children who were currently growing up with a parent who was incarcerated;
- reimbursed Medicaid providers who used trauma prevention initiatives; and
- created a health benefits package that addressed childhood trauma and its impact on lifelong health (Centers for Disease Control and Prevention Division of Violence Prevention, 2016).

Future research is needed and there is much work happening currently in Wisconsin based on what the state learned from the first round of data collection. A greater number of Native Americans are being sampled and analysis of this data is currently underway which will help better understand ACEs and how they relate to the health problems in this population. Various ACE "hotspots", or Wisconsin counties where ACEs are higher, were identified. Additional neglect and poverty questions were added to the BRFSS surveys. This data analysis will be helpful in making decisions regarding the proper distribution of related prevention strategies (Centers for Disease and Control and Prevention Division of Violence Prevention, 2016).

**Stress, Trauma, and the Brain**

The stress of severe and chronic childhood trauma – such as being regularly hit, constantly belittled and berated, watching one's father often hit one's mother – releases hormones that physically damage a child's developing brain. In the context of brain research done by Kate Cairns and Associates (2012), trauma has a specialized meaning---it means "acquired brain injury as a result of unregulated stress" (slide 2). The researchers added that usually stress is a healthy feeling. When stress is regulated, it enables people to function at their best but when stress is not regulated, an overdose of stress hormones is released and has been found to be toxic to the brain (Cairns, 2012). This changes the blood supply to key brain areas, then leads to lasting injuries (Cairns, 2012). According to Cairns (2012), chronic (toxic) stress causes the brain to secrete an excess of hormones, such as cortisol. Excessive secretion of cortisol interferes with memory, retention, focus, and learning. As a result of experiencing extreme traumatic stress over time, the hippocampus—the part of the brain responsible for learning new things—can become damaged. In addition, an overload of stress can cause an imbalance in the functioning of the brain's hemispheres. When people feel healthy, centered, and balanced, both hemispheres of the brain work well together. When people are excessively depressed, anxious, and stressed, the right hemisphere becomes dominant. This interferes with cognition, self-regulation, and the ability to focus and remember. Adult learners might have experienced maltreatment, shame, and humiliation in childhood, leading to traumatic stress. There are certain issues that may help educators better understand what adult trauma survivors bring to the classroom and how these issues affect their capability to learn and retain new information (Cairns, 2012).

**The response to threat.**

The human mind and body have predictable responses to threat. During a stressful event, the sympathetic nervous system activates the fight-or-flight response. The stress hormone cortisol is released (Perry, 2006). In the initial stages of this reaction, there is a response called "alarm reaction" (Perry, 2006). Normally, when the stressor goes away, the parasympathetic nervous system responds and returns the body to normal. However, in a traumatic event, which is caused by unusually large amounts of stress, excess cortisol is released in the body. That large amount of cortisol has negative effects on the brain, damaging the CA3 neurons in the hippocampus (Nixon, Nishith, and Resick, 2004). The hippocampus is the region of the brain that consolidates short-term memories into long-term memories. Damage to the hippocampus can affect the person's ability to learn new information. Severe effects on the brain are seen with patients who experienced trauma during childhood (Bremner, Vermetten, Afzal and Vythilingam, 2004). Someone feeling threatened might not spend a lot of time thinking about the future or making a plan for survival. Perry (2016) explained this by, "a frightened person does not focus on words; he or she attends closely to what appears to be threat signals in the environment" (p. 26).

The damage to the hippocampus impairs the person's ability to form new memories, thus affecting her ability to learn. In addition, verbal learning can be affected, in which the patient has difficulty retaining information gathered from verbal sources, compared to visual. Furthermore, trauma can affect sustained and focused attention, which is used when processing sensory input into short-term memories (Jenkins, Langlais, Delis, & Cohen, 2000). Adult students who previously experienced trauma but were unable to use a "fight or flight" response during the traumatic event might use avoidant or psychological fleeing mechanisms that are

dissociative. Perry (2006) described dissociation as a mental mechanism by which one withdraws attention from the outside world and focuses on the inner world. Daydreaming is an example of a dissociative event that might occur in many adult classrooms.

**How fear changes thinking, feeling, and behaving.**

A traumatized person in a state of alarm is less capable of concentrating, more anxious, and more attentive to non-verbal cues such as tone of voice, body posture and facial expressions—and may misinterpret such cues because of anxiety-induced hypervigilance (Perry, 2006). This is important to note in order to understand how adults who earlier experienced negative learning situations in classrooms might respond in a new learning environment that occurs many years later. Perry pointed out that a major mistake one can make with these individuals is to misjudge their internal state. These adults may have difficulty taking risks, which could include starting new tasks, responding to questions, or considering an alternative viewpoint. They may also have difficulty maintaining self-esteem, and when they become overwhelmed, they may become angry or feel helpless. More seriously, such students may become avoidant and miss classes (Perry, 2006).

Educators often believe that adult learners are capable of taking instructional directives, when sometimes these learners are in a state of fear from current or past trauma. A multi-layered command, like, "take out your book and turn to page 101, and then write out the key concepts from this chapter" is sometimes processed incorrectly. This causes confusion, which leads to anxiety; this anxiety can escalate, which makes it more difficult to follow directions. If this learner makes a mistake and then, in turn, asks a neighbor to repeat what was missed, the teacher may become frustrated or impatient. A teacher's tone of the response could escalate the learner's anxiety even more which could lead to an inappropriate or immature response. This can lead to

mutual misunderstandings. The teacher is frustrated that the learner is not paying attention and the learner comes to dislike the teacher, or learning in general, which repeats the patterns of disengagement in school and learning (Perry, 2006).

**Baseline state of a traumatized learner.**

According to Perry (2006), a neuroscientist and child and adolescent psychiatrist at Child Trauma Academy in Houston, Texas, said there is a key to understanding the long-term impact of trauma on an adult learner and that is to remember that he or she is often, at baseline, in a state of low-level fear from past or on-going trauma. This fear state reflects either hyperarousal or a dissociative adaptation pattern, or a combination of both. He went on to say that the major challenge to the educator working with highly-stressed or traumatized adults is it is necessary to make sure that structure, predictability, and a sense of safety are integrated into the learning environment (Perry, 2006). Perry noted that teachers have observed individuals who appear to be bright but, at times, perform poorly in an academic environment. School might become difficult and humiliating for these adults. They might have come into the adult learning situation with histories of failure, and sometimes with an expectation of further failure (Perry, 2006). This information might be important in understanding why an adult learner with a trauma history (therefore in a state of arousal) struggles to learn effectively. The capacity to internalize new verbal information depends on the frontal and cortal areas being activated, which in turn requires a state of attentive calm. Perry went on to say that the traumatized adult learner has difficulty reaching this state because different areas of this person's brain are activated, which makes different parts of the brain control functioning.

**Retrieving information in a state of fear.**

The adult learner in a persisting low-level state of fear retrieves information from the world differently than do other adults. Perry (2006) compared the feeling that these adults got from all learning experiences to the familiar feeling of test anxiety. No matter how successfully the adult stored information in the cortal areas, this information was inaccessible while the learner felt fearful. Problem-solving capabilities are not accessible by this cortex. Perry continued to explain that when this individual felt threatened, the individual was likely to act out in an "immature" way. Regression, which we often experience when we are tired, hungry, anxious, or sick, is the response that stimulates the less-complex areas of the brain. If adult learners were raised in environments of constant threat, he/she will have an altered baseline so that an internal state of calm is rarely obtained (or artificially obtained through drugs and alcohol). In addition, Perry explained that if the traumatized individual had a "sensitized alarm response", they would misread verbal and nonverbal cues as threatening. This resulted in dramatic changes in behavior.

**Safety and learning.**

Finally, according to Perry's (2006) research, optimal learning depended on curiosity, exploration, discovery, and the mastery of new skills because it led to pleasure and the confidence to be a lifelong learner. When learning success was experienced, there was an interest in learning more.

The fear or alarm response hindered curiosity and inhibited learning. If adults were anxious, uncomfortable or fearful, they did not learn as effectively. If they were unwilling to explore or if they developed anxiety with new experiences, they limited themselves from many new opportunities. When the learner felt safe, curiosity flourished. According to Perry (2006), "Creative and respectful educators can create safety by making the learning environment more

familiar, structured and predictable" (p. 27). In summary, a sense of safety in adult learning came from consistent, nurturing, and sensitive attention to the learner's state of mind (Perry, 2006). While ABE teachers do not need to study neuroscience in depth, understanding the relationship between chronic stress, trauma, and learning can help inform practice and help students understand some of the things that might be getting in the way of students' progress.

## Young Adults and Educational Attainment, Persistence, and Mental Health in Today's Technical Colleges

### Educational attainment and persistence.

Each year, more and more young people go to college. The Bureau of Labor and Statistics (2016) reported that in 2015, nearly 70% of high school graduates entered some form of postsecondary education within two years of graduating from high school. Technical colleges have had a history of embracing accessibility and diversity. Many people have enrolled in technical colleges because they have not felt prepared for four-year colleges. These opportunities in the United States of America have come with challenges because completion rates are among the lowest in the developed world. According to the National Center for Educational Statistics (2014), of those students who started their education at two-year institutions, their completion rates were lower than four-year institutions. Roughly 28% completed a certificate or degree within three years of entry. The consequences for non-completers could be severe, because there were essentially no payoffs in the workplace for "some college, but no degree." Research from the 2017 Council of Economic Advisers report pointed out that even small college debts could be detrimental because non-completers defaulted on loans at a much higher rate than completers (Obama, 2017).

Educational attainment was associated with many other measures, including income, employment, and political participation, and was an indicator of how young adults were shaping their future prospects. According to the Federal Interagency Forum on Child and Family Statistics, America's Young Adults: Special Issue: 2014, educational attainment referred to "the highest level of education completed regardless of current enrollment in school" (p. 8). There were increases in the percentages of young adults ages 18–24 who attained higher levels of education from 1980 to 2012.

**Mental health.**

The well-being of young adult learners in the United States today remains an area of key interest to the public and policy-makers alike. Young adulthood is an exciting, yet vulnerable period, during which the availability of mental health services is so important. Researchers have discovered, when examining factors that led young adults with trauma to experience high levels of educational achievement, identifying and addressing mental health challenges were key components (Geenen et al., 2015).

Post-secondary institutions are facing an increased demand for mental health services. A study by the National Alliance on Mental Illness, (Porche, Fortuna, Lin, & Alegria, 2011), determined that more than half of the respondents diagnosed with a mental illness struggled to cope while attending a post-secondary institution. According to a new study of ten community colleges across the nation that was conducted by researchers at Wisconsin Hope Lab at the University of Wisconsin–Madison, more than 4,000 community college students surveyed were experiencing a current or recent mental health condition (Eisenberg, et al., 2016). Less than half of these students had received mental health services (Eisenberg, et al., 2016). In addition,

recent findings from the Substance Abuse and Mental Health Services Administration, (SAMHSA) (2011) indicated that people who had experienced trauma were:

- 15 times more likely to attempt suicide
- 4 times more likely to become an alcoholic
- 4 times more likely to develop a sexually-transmitted disease
- 4 times more likely to inject drugs
- 3 times more likely to use antidepressant medication
- 3 times more likely to be absent from work
- 3 times more likely to experience depression
- 3 times more likely to have serious job problems
- 2.5 times more likely to smoke
- 2 times more likely to develop chronic obstructive pulmonary disease
- 2 times more likely to have serious financial problems

These findings point to a critical need for mental health services on post-secondary campuses.

According to a study conducted by the American College Health Association (2013), 70% of the 153 responding U.S. colleges provided at least some mental health counseling service. This same study revealed that nearly all counselors, (97%), had considerable duties, in addition to, personal counseling such as: career counseling, academic advising, or administrative duties. In addition, 88% of community colleges did not have a psychiatrist or other licensed staff persons to provide services and 57% did not offer suicide prevention resources or programming (American College Health Association, 2013). The ratio of counselors to students at community colleges was 1 to 3,000, compared to 1 to 1,600 at four year institutions.

Are community college students seeking and receiving assistance to support mental health? According to the same Wisconsin Hope Lab's mental health survey (Eisenberg, Goldrick-Rab, Ketchen-Lipsen, & Broton, 2016), community college students were considerably less likely to have visited a health care provider (83% of four-year students sought help compared to 70% of community college students). Additionally, the study reported that community college students were less likely to report receiving informal counseling or support for mental health, as

compared to four-year students (46% versus 70%) (Eisenberg, Goldrick-Rab, Ketchen-Lipsen, & Broton, 2016).

The data from Wisconsin Hope Lab research highlighted the vast number of community college students who were experiencing significant challenges related to mental and emotional health. The data showed that many of these students were not accessing mental health services. These challenges were even greater than those that have been well-documented at four year institutions. Mental health was an important predictor of academic performance and persistence (Eisenberg, Goldrick-Rab, Ketchen-Lipsen, & Broton, 2016). The researchers from Wisconsin Hope Lab, claimed there were great implications for the well-being and productivity of our communities nationwide, as millions of these students will enter the workforce each year (Eisenberg, Goldrick-Rab, Ketchen-Lipsen, & Broton, 2016).

## Key Elements to Consider in Creating Trauma Responsive Environments in Post-Secondary Classrooms

Postsecondary education is an influential factor in adult success, overall, and in particular for disadvantaged young adults (Edelman & Holzer, 2013). Postsecondary education was associated with increased earning potential, enhanced health status, reductions in risk behaviors and increased community participation (Institute for Higher Education, 2005). The transition to college could be an opportunity for trauma survivors to seek their own trauma support and intervention (Banyard & Cantor, 2004). According to Fallot and Harris (2011), institutions, including schools, often perpetuated trauma rather than reduced it, which led to experiences of chronic stress, burnout, and compassion fatigue. Academic environments that were trauma-informed could be healing institutions that have lasting benefits for students, staff, and the community alike (Brunzell, Waters, & Stokes, 2015).

Crosby et al., (2014), pointed out that some of the negative outcomes associated with trauma exposure were: substance abuse, mental illness, low academic attainment, social difficulties, physical health problems, homelessness, early parenting and sexually-transmitted diseases, working poverty, unemployment, dependence on public assistance, and limited access to reliable transportation. Many of these outcomes had an impact on students' educational attainment. Many trauma-exposed students had: lower scores on achievement tests, were less likely to do homework, were more than twice as likely to fail a class, had lower GPAs, had more school absences, and had lower self-esteem (Crosby et al., 2014). Given these alarming rates of school struggle and failure, teachers must have the strategies and support needed to meet the complex needs that adult students bring to the post-secondary classrooms.

According to Hopper, Bassuk, and Olivet (2010), "Trauma-informed care is a strengths-based framework that is grounded in an understanding of a responsiveness to the impact of trauma, that emphasizes physical, psychological, and emotional safety for both providers and survivors, and that creates opportunities for survivors to rebuild a sense of control and empowerment"(p.131). The review of literature revealed two broad intervention areas for trauma-affected classrooms: healing the dysregulated stress response (regulation) and addressing attachment capacity (relationship) (Brunzell et al., 2015). There are four priorities that teachers should embrace when incorporating trauma-informed teaching strategies.

- Self-Regulation
- Attachment Principles
- Positive Psychology and Positive Education, and
- Program Support and Community Resources

An explanation of each trauma-informed priority and some practical strategies that teachers can incorporate into their classrooms are provided here.

**Self-regulation.**

Trauma-informed approaches emphasize strategies that address dysregulated stress in trauma-affected students. Effective classrooms introduced students to experiences that focused on both physical and emotional regulation (Brunzell et al., 2015).

Brunzell et al. (2015), explained physical regulation as coming from the body's sensory and nervous systems. Often these interventions take the form of rhythmic, patterned activities that reinforce classroom structure. Physical regulation can be integrated into the classroom environment, in the ritual, procedures, and in the curriculum. These repetitive activities give students opportunities to healthily modulate their active heart rate and resting heart rate while also creating group cohesion and readiness for learning (Brunzell et al., 2015).

Adult educators can create opportunities for physical regulation when students are having a difficult time engaging in classroom tasks. Consistent rituals or activities at the start of each class might help students settle in, relax, and get comfortable. They also might promote safe, stable, and supportive classrooms. Furthermore, the researchers pointed out that the more teachers were transparent with their students about their goals or agendas for the day, the more it helped the students understand the rationale for your choice in the curriculum for the day (Balliro, 2012). When students knew what to expect as they arrived for class, it helped lower their anxiety regarding any new material they were learning (Balliro, 2012). Some example activities that Balliro (2012) and Brunzell et al. (2015), provided were: worry bowls, guided meditation, visualizations, yoga, music-based activities, drumming, and setting intentions

(mindfulness) for class. The classroom environment did not need to be limited to the four walls in a building. Getting out for walks allowed for fresh air, sunshine and movement, and could be turned into language, research and writing activities. Holding class in unconventional places can be an excellent way to break down the barriers associated with past institutionalized failures (Balliro, 2012).

According to Brunzell et al. (2015), teachers who emphasized health and neurodevelopment as curricular themes, had great success. Lessons about biofeedback and looking at heart rate data through numeracy and science units offered powerful opportunities for students to modulate and gain better understandings and strategies to encourage the opposite stress response: relaxation response (Brunzell et al., 2015). It was also noted from Brunzell et al., that regulatory activities were not only helpful for trauma-affected students, but they could also be used to build self-regulatory neural pathways in students who had not experienced trauma.

Emotional regulation is another priority of trauma-informed teaching. According to the research, it is recommended that trauma-affected students must have opportunities to emotionally regulate by identifying and acknowledging difficult feelings, linking their internal feelings with external experiences, and learning personal strategies for de-escalating heightened emotions that enable them to return to a calm state (Brunzell et al., 2015). Teachers can design and incorporate curricular opportunities such as analyzing texts through an "emotion lens", drama-based activities where students act out and deescalate emotions, or collaborative opportunities for shared leadership or problem-solving (Brunzell et al., 2015).

**Attachment principles.**

The second principle of trauma-informed education addressed the healing of attachment styles. According to Brunzell et al., (2015) the presence or absence of nurturing interactions had the potential to form future reactions of self-protection in the face of adversity, threats, or danger. Brunzell et al. reported that in trauma-affected families, these reactions were inconsistent because of unpredictable responses to stress when children could not soothe themselves. Defensive behaviors such as aggression, withdrawal, dissociation, and bullying served as protective strategies for trauma survivors as a consequence of abuse or neglect (Brunzell et al., 2015).

Attachment principles can guide teachers when nurturing relational strengths in students through classroom-based relationships. It is important for teachers to establish strong relationships and bonds in the classroom through multiple, consistent, and daily relational interactions. Teachers who are empathetic, trustworthy, warm, genuine, and nondirective can be the most effective if they view the relationship as an opportunity to build a reciprocal attachment (Brunzell et al., 2015). Teachers can do this by incorporating laughter, which reduces the level of stress hormones in the body while increasing hormones that make one feel good. Laughter stabilizes blood pressure, helps digestion, and increases oxygen supply to the muscles (Balliro, 2012). Teaching emotional intelligence competencies to understand self and others is also another noted strategy (Brunzell et al., 2015). Trauma-informed teachers must develop a strong resolve to understand their own stress responses within the context of the classroom (Brunzell et al., 2015). Teachers hold a position of sometimes "unacknowledged" power. Brunzell (2015) claimed that a "relationally-based classroom is predicated on the belief that struggling students will put forth their best efforts for teachers they like, respect, and believe will be present for them

in times when they are not at their best" (p. 6). Teachers must continually work to employ attachment-based principles to present consistent, proactive, and welcoming invitations to promote safe opportunities to learn (Brunzell et al., 2015).

**Positive psychology and positive education.**

Sociologist, Corey Keyes (2002), argued that building mental health requires more than just repairing illness. He explained that one does not learn about one's strengths by studying one's weaknesses. Trauma-affected students need ever-present opportunities to build upon their strengths. Strength-based psychologists studied well-being, human strengths, and optimal functioning in groups, individuals, and organizations (Brunzell et al.,2015). Bruzell et al. (2015) explained that positive education "offers an important perspective to trauma-informed models of classroom learning because it creates more pathways for teachers to address differentiated social and emotional skill development" (p. 6). Bruzell et al. advocated for a mind-body approach which addressed the factors that promote post-traumatic growth by increasing psychological resources through strengthening both social support and strength-based competencies. There are four strategies that teachers can use that integrate positive education in trauma-informed classrooms:

- Positive Emotion,
- Character Strengths,
- Resilient Mindset, and
- Gratitute (Brunzell et al., 2015).

***Positive emotion***.

Barbara Fredrickson's (2001) work at the University of North Carolina explained that positive emotions broadened one's thought-action repertoire and built social resources. In addition, positive emotions broadened attention, improved visual attention and changed the experience of the present moment. This research showed enhanced health, social growth and fulfillment (Keyes, 2002).

Many teachers consider themselves to be positive people with their students. When teachers are priming their learning environment with positive emotion, they keep in mind how the environment looks to students. Adequate personal space, natural or soft lighting, culturally-responsive music, art, nature, use of colorful, calming and positive visuals, comfortable seating that promoted collaboration, attention-grabbers, and having water and healthy snacks on hand are all ways that positive emotion were primed in the classroom (Balliro, 2012; Brunzell et. al, 2015).

***Character strengths.***

According to Brunzell et al. (2015), "developing character strengths is a powerful way for students to live toward their own values and to achieve personal goals and improve their sense of wellbeing and accomplishment" (p. 7). All students, especially trauma-affected students, might need opportunities to identify, recognize, practice, and set goals using their strengths (Brunzell et al., 2015). Psychologists Christopher Peterson and Martin Seligman suggested a framework called, *VIA Classification of Character Strengths and Virtues,* for schools to unify their strengths language through a whole-school approach to teaching and learning (Peterson & Seligman, 2004). Teaching character strengths in schools has been shown to

increase school performance, achievement, and to be an effective tool in planning higher education and career pathways with trauma-affected students (Brunzell et al., 2015).

### *Resilient mindset.*

According to the research of Brunzell et. al, (2015), students must have opportunities to employ the strategies of a resilient mindset in times of adversity. Students make resilient choices that many times go unnoticed, such as coming to school even though the classroom has been a place of failure, frustration, and isolation. One strategy that Brunzell et al., recommended was to promote positive self-talk through resiliency vocabulary. For example, students listened to radio pop songs and they identified resilient and non-resilient self-talk. In a trusted and collaborative classroom atmosphere, the students used this time to communicate and share their problems. This promoted collaborative problem-solving, which was a key component to trauma-informed teaching. Another activity Brunzell et al. recommended, was to have students bring in internet links of their favorite sports clips. Teachers asked what part of the brain was firing at those moments and what the resilient or non-resilient self- talk may have been for that athlete.

### *Gratitude.*

Many assume that teachers who work with trauma-affected students may have a difficult time teaching gratitude because the students who have experienced traumatic stressors may find lessons on gratitude inappropriate (Brunzell et al., 2015). Psychologists Emmons & McCullough (2004), emphasized that a "sense of gratitude through action, lived experience, connection to others, and a recognition that even in dark times, people can benefit from practicing gratitude (p.9). Brunzell et al. (2015) noted that trauma-affected students must be led to opportunities for "action gratitude". This helps these students notice and capitalize on the small moments of good

that can occur. These small moments help to build and eventually accrue emotional, cognitive, and social resources (Brunzell et al., 2015). Brunzell et al. defined gratitude as "being aware and appreciating good things, particularly another's actions, and experiencing the kindness of others" (p. 9). Bruzell et al. recommended gratitude journals as a way in which teachers could incorporate gratitude in their curriculum. Gratitude journals could be used to acknowledge three good things about the day and recall what worked well (Brunzell et al., 2015). Gratitude not only affected the receiver, but also the giver. This could be a powerful way for trauma-affected students to build strong, empathetic relationships through action.

**Program support and community resources.**

The last important principle of a trauma-informed education is the importance of program support and connection to community resources. Research has shown that establishing relationships with mental health agencies in the community and on campus, and keeping those relationships alive, can really strengthen a program (Balliro, 2012).

Teachers can help their students connect to community resources by integrating these resources into the curriculum. Creating a directory of nearby social service agencies as a class research project, according to Balliro (2012), can be one way that teachers can promote this in the classroom. The directory can include resources to food banks, housing agencies, mental health services, health care, and any other agencies that may provide help to adult students and their families. Instructors can arrange for health care workers to visit classrooms to discuss college-related health issues and concerns. Attending college health fairs and visiting the college health center (if available), may be another class opportunity to become more aware of community and college resources. This will help the students be more comfortable visiting these resources in the future. When teachers can create lesson plans around mental health and help

students to connect with community resources, a valuable learning experience can be created for trauma-affected students (Balliro, 2012).

**Summary**

An estimated two in three adults have been exposed to traumatic experiences that have the potential to impact brain development, social functioning, and the ability to learn and engage in school (McInerney & McKlindon, 2014). Recognizing and addressing this issue must become a focus in higher education. It is clear that there is a vast number of adults attending community colleges who are experiencing significant challenges related to mental and emotional health due to the impact that trauma has had on their lives. Millions of these students enter the workforce each year which has significant implications for the well-being and productivity of our communities nationwide. Research also indicated that mental health conditions were more prevalent among technical college students, yet mental health services were less common in 2-year institutions (McInerney & McKlindon, 2014).

Mental health conditions on campus clearly merit more attention, especially at our technical and community colleges. In one study, nearly 40% of students have experienced, or had been witness to, traumatic stressors that affected their abilities to self-regulate and sustain healthy relationships. In the classroom, the effects may have manifested as attention deficit disorder, conduct disorder, oppositional defiance disorder, reactive attachment disorder, and acute stress disorders. Many of these students who have not had positive educational experiences attend two year institutions in order to finish their high school credential or to persist in completing a post-secondary certificate, diploma or associate's degree. It is vital that adult educators in two-year institutions are equipped in trauma-informed teaching strategies. Instructors in a trauma-informed environment **realize** the widespread impact of trauma and

understand the potential paths for recovery. They **recognize** the signs and symptoms of trauma in their students and they **respond** by fully integrating knowledge about trauma into their teaching practices.

## Chapter Three: Conclusions and Recommendations

The purpose of this paper was to provide awareness of the prevalence of trauma and the effects it has on learning in America's technical and community colleges. A review of literature uncovered best practices for teachers, administrators, and counsellors who provide educational and mental health services to adult learners as they persist through technical and vocational programs. The research suggested the importance of mental health awareness by looking at it from a community context. Professionals have powerful roles in supporting healthy communities, strong work forces, and healthy families. Lastly, literature was reviewed to determine best practices in order to promote trauma- informed learning environments in post-secondary institutions.

With nearly 70% of high school graduates entering some form of postsecondary education within two years of graduating from high school (Bozick & Lauf, 2002), and given the high prevalence of young adults coming to higher education with traumatic backgrounds, many leaders need to confront this issue (McInerney & McKlindon, 2014). Based on recent statistics, it can be concluded that there is a need for trauma-responsive classrooms and support systems in our technical and community college campuses.

Researchers and practitioners in the field agree that trauma-informed approaches make sense, and a growing body of research supports their implementation as evidence-supported approaches. However, rigorous evaluation and research is still needed to build on this evidence and further establish the efficacy of these approaches, especially in higher education. Researchers recommended certain approaches that schools and educators can use for children and adolescents, but there is very little research or data that supports the original question: Do trauma-informed environments promote and encourage persistence and retention in technical and

vocational programs? There were, however, some powerful themes and recommendations related to trauma and post-secondary education that emerged from this research.

First, schools should create links and partnerships with mental health consultation and services for staff and students. For staff, clinical supports include the opportunity to participate in sessions with their peers and a clinician to confidentially discuss certain cases, reflect on experiences, and learn and practice strategies for working with students. For students, school counselors should be referring students to the appropriate mental health resources and following up on these referrals. Health clinics and counselor-to-student ratios should be appropriate. Trusting relationships can help to ensure success.

Second, there are specific academic strategies that can be used to support the learning needs of students who have experienced trauma, including recognizing the symptoms of adults who have experienced trauma; discovering and building on the students' individual interests and strengths; maintaining predictable routines and expectations, maintaining high expectations for the student that are consistent with those of his/her peers; and providing positive behavioral supports and collaboration with community resources that identify the students' specific needs.

Third, it is important to develop appropriate classroom procedures and protocols that maximize mutual respect between instructors and students. Classroom policies and procedures are trauma-informed when they balance accountability with an understanding of traumatic behavior; always empower (avoid battles for power); create consistent rules and consequences, model respectful and nonviolent relationships; respect confidentiality and encourage open communication and nonacademic relationship building (McInerney & McKlindon, 2014).

Lastly, the research suggested the importance of bringing interested educators across multiple disciplines together to discuss what is needed to further infuse an understanding of adversity and trauma into the curriculum. In addition, this same group could gather monthly to discuss best classroom practices and ways in which they can promote equity throughout the institution. It is important to reach out to departments, program chairs, or deans in the various departments of our colleges to see what classes are being offering that have trauma content in them. The more our work force, schools, and communities are informed of the prevalence of trauma, the more advocacy and positive change can be promoted.

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