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MARGINALIZED POPOULATIONS AND TRAUMA-INFORMED PRACTICES AT THE
SECONDARY LEVEL: UNDERSTANDING THE CONNECTIONS BETWEEN TRAUMA
EXPOSURE AND ACADEMIC OUTCOMES THROUGH AN INTERSECTIONAL
FRAMEWORK

KIRSTEN SCHERTZ-HANY

74 Pages

This research seeks to understand the relationship between marginalized identities and trauma in adolescents in relation to classroom outcomes, both behavioral and academic, through an intersectional framework. A synthesized review of literature as well as a quantitative study using the HSLS:09 data was conducted to discern how marginalized populations experience trauma in the school environment, and how that trauma impacts academic outcomes. The conclusions drawn through the review of literature and research suggest that marginalized students experience trauma at higher rates as well as disruption of academic outcomes. These conclusions are disseminated in chapter III which is a practitioner piece for professional educators so that they can better understand how to apply theory to practice in classroom environments in relation to trauma-informed practices.

KEYWORDS: intersectional framework, marginalized populations, trauma-informed practices

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FRAMEWORK

KIRSTEN SCHERTZ-HANY

A Dissertation Submitted in Partial
Fulfillment of the Requirements
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School of Teaching and Learning

ILLINOIS STATE UNIVERSITY

2023

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K.N.S-H.

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INTRODUCTION

The purpose of this dissertation is to explore the relationship between marginalized individuals who have experienced trauma and academic outcomes. These articles seek to understand the relationship between marginalized identities and trauma in relation to classroom outcomes both behavioral and academic through an intersectional framework. A synthesized review of literature was conducted to discern how marginalized populations experience trauma in the school environment as well as how that experienced trauma impacts academic outcomes. To answer these questions literature and research, both quantitative and qualitative, were analyzed and compiled to better understand the connections between trauma and academic outcomes specifically for marginalized populations. The conclusions drawn through literature suggest that the use of an intersectional framework allows for a more comprehensive understanding of the complexities of systemic oppression in the school environment. Further, awareness of trauma in marginalized individuals can allow for professional educators to better understand how to apply theory to practice in classroom environments to better support students.

The overall aim of the three articles is to provide a strong literature review (chapter I) that is connected to quantitative research (chapter II). The outcomes of that literature review and quantitative research is disseminated in the practitioner based article (chapter III). The overall goal is that the practitioner's piece (chapter III) is directly relevant and applicable to secondary educators. Each of the chapters is meant to stand alone as its own article, therefore some relevant information is repeated in each of the chapters.

This topic of research is not only imperative for educators to understand and implement but also an issue of equity. Moving forward, more research will be needed in order to understand how those unique identities connect to the experience of trauma. This research could

have direct application that allows educators to identify and support students who have had an adverse childhood experience thereby creating an intersectional lens on the trauma experiences of marginalized/underrepresented peoples thus promoting a greater understanding of how marginalized/underrepresented peoples intersectional identity contribute overall to inequality in the education systems.

CHAPTER I: MARGINALIZED POPULATIONS AND TRAUMA-INFORMED PRACTICES
AT THE SECONDARY LEVEL: UNDERSTANDING THE CONNECTIONS BETWEEN
TRAUMA EXPOSURE AND ACADEMIC OUTCOMES THROUGH AN
INTERSECTIONAL FRAMEWORK

Introduction

As a field of study, trauma and trauma-informed care has been tracked for almost 30 years in children; however, it is a more recent development to understand how trauma impacts children in classroom environments. For this research the concept of “trauma-informed practices/care” (TIC) comes from the Substance Abuse and Mental Health Services Administration (SAMHSA, 2015) which states that TIC acknowledges the prevalence of trauma, recognizing the impact of these experiences on all individuals, utilizing trauma-sensitive practices and policies, and avoiding practices that may cause re-traumatization. In order to understand the impact and outcomes of trauma, a necessary change in research methodologies must be considered to identify both trauma in current systems of power and how to evaluate the experiences of individuals within those structures (Museus & Griffin, 2011). Additionally, an intersectional framework (Case, 2017; Davis, 2008) will be used as a methodological base to better understand the relationship between marginalized students' connections and/or experiences with trauma, and academic outcomes. For the purposes of this study, the term “marginalized” refers to populations of persons or groups that can include, race, ethnicity, sexual orientation, socioeconomic status and/or any other defining factor that would render that person or group powerless in a society due to lack of access to the normative power matrix (Grant & Zwier, 2014). This study is intended to understand the relationship with intersectional components of

identity and trauma in relation to classroom behavior and overall academic performance. There are two research questions to be addressed in this study:

1. How do marginalized populations, particularly people of color, experience trauma (as defined by the CDC-Kaiser ACE study) (Centers for Disease Control and Prevention, 2021). in the school environment?

Historical Background

When considering the subject of trauma, the Centers for Disease Control's (CDC) research at Kaiser Permanente from 1995 to 1997 is considered a capstone body of literature (CDC, 2021). The research study had two different data collections totaling 17,000 individuals that completed confidential surveys on the respondent's childhood experiences as well as current health status and behavior patterns. The outcome goal of the data collection was to understand how the experience of an adverse childhood experience (ACE) may impact the future health and well-being of a child (CDC, 2021). The results of the CDC-Kaiser ACE research study led to the development of seven overall divisions: (a) psychological abuse (b) physical abuse, (c) contact sexual abuse, (d) exposure of substance abuse, (e) exposure to mental illness, (f) violent treatment from a parent or guardian, and (g) exposure to criminal behavior. These were further divided into two general categories: childhood abuse and exposure (Felitti, et al., 1998). The study linked the amount of reported adverse childhood experiences to overall statistical outcomes such as, exposure to one category had a high probability (mean 80%) of exposure to other categories of ACE (Felitti, et al., 1998). Furthermore, the study found that this high probability of multiple exposure can be associated with health risk factors including early death (CDC, 2021). While this information is specifically related to health outcomes, the CDC-Kaiser ACE

study can be utilized by understanding the adverse effects of trauma and in turn recognizing that those outcomes would negatively impact children in school settings. According to Leitch (2017),

By bringing attention to the powerful impact that negative childhood experiences have on future health and functioning, the ACE study demonstrates the importance of gathering information early in the lives of children and their families and designing early intervention programs that target violence and neglect. (p. 2)

The school environment must be a consideration in these interventions for students who have experienced trauma and by creating a deeper understanding of defined trauma and trauma-informed practices educators will be better able to recognize and respond to the impact of trauma in the classroom. Additionally, the works of Robert Carter (1994, 1995, 2004, 2005, 2007) addressed the issues of psychological damage as a result of unchecked racism in society. Given that the education system has been built and maintained by mainstream patriarchal systems it is not stretch to consider that this psychological damage is indeed occurring for students of color in the classroom. In his seminal work, Carter (2007) introduced a psychological model of race-based trauma by stating,

Race-based events that may be severe or moderate, and daily slights or microaggressions, can produce harm or injury when they have a memorable impact of lasting effect or through cumulative or chronic exposure to the various types or classes of racism. The most severe forms may not be physical attacks. In the section on physiological reactions to racism, blatant forms of discrimination were not often related to rises in heart disease risk, but rather more subtle acts were related to potentially harmful physical reactions. (pp. 89–90)

These combined factors lead researchers to the premise that people of color are not only experiencing societal pressure different from White counterparts, but have real and negative consequences due to that exposure and to other exposures of trauma. Race-based trauma and its impact on marginalized adolescents academically and emotionally has been an issue of increased concern due to racial disparities in the American education system (Polanco-Roman et al., 2016). This research study seeks to not only understand the role of trauma, but to situate that understanding in the complexities of marginalized identity.

Intersectionality as a Theoretical Framework

For the purpose of this research the term intersectional will be defined through race/ethnicity, gender, and socioeconomic status, while this term can be more broadly defined the use of the specific researchers and scholars is intentional. There is no singular definition of intersectionality; the most authoritative commentaries suggest that race is socially constructed and that all differences in connection to race are “invented, perpetuated and reinforced by society” (Gillborn, 2015, p. 278). Through this research Gillborn (2015) suggested that if we operate using the above tenets of critical race theory and intersectionality one could deduct that individuals who historically lack access to the power matrix will indeed experience inequality in a pervasive yet subversive manner. The empirical data for Gillborn’s study came from a two-year study that included interviews of parents/guardians of African American children. The qualitative data were collected in the form of interviews that explored the parents’ perceptions of their child’s educational experience as an African American. Originally 62 interviews were completed with 15 parent/guardians being re-interviewed creating a total of 77 interviews. From these interviews, the overall conclusion was that African American parents, even those who would be considered middle class and above, perceived having a difficult time addressing

(recognizing and acting upon) their child's needs in an academic environment. The research also identified that children who are from marginalized groups, especially African Americans, are more likely to be labeled in a negative or deficit manner (often associated with special education ideology). Gillborn 2005 stated, "In relation to the United States, Black (African American) students face much higher levels of labeling (what they term "*risk rates*") in SEN categories that depend on clinical judgment rather than on verifiable biological data" (p. 282) These patterns often lead to segregation from mainstream classrooms harkening back to a historical era that systemically barred African American children from access. This historical pattern, combined with new knowledge of trauma and trauma outcomes in academic settings dictate a need for research that seeks to understand the connection and complexity between marginalized race/ethnicity and academic outcomes.

When considering the complex nature of trauma and the lack of responsiveness in educators in the American school system (e.g. Alvarez, 2020, Kohli, 2017, and Hertel & Johnson, 2013) more research is needed to understand how to better support students who have had an adverse childhood experience that intersects multiple components of identity. Many programs that seek to be trauma sensitive are often additive and focus on a single-access fundamental rather than seeking to create a synthetic understanding (Ladson-Billing, 2006). For example, a program may promote one component of identity such as race without considering how gender may be impacting the student. The history of intersectional practices in education initially identified by Ladson-Billings (2006) were engaged as an analogy in Ladson-Billings and Tate's (1995) generative analysis of Whiteness in education through the lens of critical race theory. A robust volume of educational research has been conducted on critical race theory, but

the pervasive idea of intersectionality has created logistical barriers of interpretation. As identified by Tefera et al. (2018):

The concept of intersectionality has not traveled across the methodological divide between qualitative and quantitative research, in part because of logistical barriers such as the difficulties of interpreting complex statistical models and the lack of secondary data with adequate representation of the subgroups needed to conduct intersectional analyses using multiple categories. (p. xii)

In contrast, intersectional frameworks have been used to highlight the significance of the problem but offer little in tangible methods that can be utilized to create a more supportive educational environment. One scholarly analysis by Dill and Zambrana (2009) suggested four theoretical classroom interventions of intersectionality: (a) centering the experiences of people of color, (b) complicating identity, (c) unveiling power in interconnected structures of inequality, and (d) promoting social justice and social change. In order for an educator to infuse these four practices into the classroom a deeper understanding of critical pedagogy connected to factors that are considered intersectional (e.g., race, ethnicity, gender, socio-economic status, gender, sexual identity, ability) should be examined in combination to systematic power structures. These categories would create quantifiable categories of research. According to Case (2017), referring to the intersectional framework, “this framework focused on transforming the ways people create and transfer knowledge to create social change, not simply theorizing about what could or should be done” (p. 6). By definition, an intersectional framework implies action steps and at present a majority of scholarly research associated with education exists in more of a theoretical plane rather than an action-oriented axis. Case (2017) also state that “situating identity within the privilege and oppression represents a focal point of intersectional theory” (p. 6). Research

conducted on this topic should consider the components of privilege and oppression that an individual might encounter (in regard to the overriding power structure) and how those factors are aligned with the experience of an adverse childhood experience that has created a point of trauma.

Using an intersectional framework to understand trauma in relation to the secondary education classroom allows for educators to better discern the simultaneous interactions between different social categories and how that affects behavior in the academic environment. An intersectional framework will be adapted to reconstruct systems of care in school environments that seek to respond to the complex nature of trauma as perceived and experienced by students.

Synthesis of Literature

Studies on Childhood Trauma

Given the broad term of trauma, most generally described as any experience that disrupts a child's sense of safety and security, many bodies of research attempt to specifically define the term "trauma" within the parameters of normative, social identities. Flatua (2018) articulated that we can assume that a majority of our students will have faced at least one adverse childhood experience and, "teaching educators how to recognize signs of trauma is important so they do not misunderstand the reasons that underlie some children's academic, social, emotional, and behavioral difficulties" (p. 53). If we are to accept this assumption, researchers must also understand the direct connection it has with overall academic outcomes and classroom behaviors. Flatua (2018) also described the neurobiological changes that can occur to a child and "may negatively affect neurobiological systems that are crucial for academic achievement" (p. 7). This understanding is echoed by Carrion and Wong (2012) who found that trauma significantly impacted the hippocampus and the prefrontal cortex, which are brain structures that are critical to

learning and memory. The neurological symptoms of trauma can be directly related to a lack of success in the classroom and has the potential to impact skills necessary for achievement.

Research on trauma repercussions in the classroom is an emerging field and there is a need for inquiry that specifically investigates how individuals from marginalized or underrepresented identities process and cope with damage sustained from ingrained and maintained power structures. According to Flatua (2018), “The symptoms of childhood trauma that may be evident at school can look similar to other educational or psychiatric disabilities. Given these similarities it can be a challenge for educators to distinguish the root of the symptoms” (p. 59). Furthering this challenge is that most of the outcome behaviors of trauma are often associated with deficit labels in classroom environments.

One such piece of research from Copeland et al. (2018) utilized a longitudinal survey design. Three cohorts of children, ages 9, 11, and 13 were selected from a pool of 12,000 applicants. In total, 1,420 children were engaged through this study with a balance of males to females. These children were given surveys annually until age 16 and then again at ages 21, 25, and 30. This longitudinal study attempted to replicate the relevance of trauma exposure to adult outcomes (similar to the CDC-Kaiser ACE study). The results from the Copeland et al. (2018) study found that trauma exposure in childhood has a negative effect on adult outcomes (e.g., failure to hold a job, social isolation). Over 30% of children were exposed to one traumatic event, 22% to two such events, and 15% to three or more traumatic events by the age of 16 (Copeland et al., 2018). The study also concluded that childhood trauma exposure led to higher rates of psychiatric diagnosis in adulthood (e.g., anxiety, depressions, and other psychiatric functioning with direct connection to family function). When discussing the outcome of the study, Copeland et al. (2018) stated,

The following conclusions are noteworthy. First, rather than supporting specific effects (e.g., on depression), our findings suggest that childhood trauma has broad effects on adult functioning—ranging from psychiatric status to financial and educational functioning—and these could not simply be attributed to preexisting psychiatric vulnerability or other adversities and hardships in the child’s developmental context. (p. 8)

It is important to note that children from low socioeconomic and/or communities with high rates of violence would be more likely to experience multiple exposures to trauma therefore have increasingly negative adult outcomes (Barrett et al., 2019). While this study did have extensive longitudinal data, no connections were made specifically for intersectional marginalizations associated with race/ethnicity, socioeconomic status, and gender. Understanding the trauma exposure rates for marginalized individuals who may have several intersectional identities would allow for enhanced understanding of the overall long-term impact of trauma.

In another study, Humphreys et al. (2020) conducted a meta-analysis to discern the associations between childhood maltreatment and depressive associational diagnosis later in life. For this study, the measure of childhood maltreatment came from the Childhood Trauma Questionnaire (CTQ) which is a nationally used, Likert-style questionnaire derived from the work of Bernstein and Fink (1994) (Humphreys et al., 2020). The CTQ has been shown to have internal consistency, test-retest reliability, and strong convergence to other measures that assess childhood trauma (Bernstein et al., 1998). For this study, 192 articles with 190 independent samples were used to code the methodological characteristics of the study, demographic information of participants, and assessments for a clinical diagnosis of depression (Humphreys et al., 2020). The results of this meta-analysis indicated that individuals who reported higher

childhood maltreatment scores were more likely to have a diagnosis of depression. While it was noted that the effect size was highest for emotional neglect, all effect sizes in this meta-analysis were significant between types of childhood maltreatment and depression scores, indicating overall significance between the variables (Humphreys et al., 2020). This is one of the largest studies conducted using a single measure of childhood maltreatment (the CTQ) and depression. The results clearly indicated an increased risk for higher depression symptoms and diagnosis as a function of reported childhood maltreatment (Humphreys et. al., 2020). These results underscore the need to identify the potential avenues of adverse childhood experiences so that proper mechanisms of support and intervention can be in place to potentially reduce exposure rates. While this research was robust in its methods and findings, little concentration was given to the cultural factors of identity when coding responses for analysis. These culturally bound components of identity could allow for a deeper understanding of the connections between childhood maltreatment and the diagnosis of depression.

Need for Trauma-Informed Care (TIC) in the Classroom

Research suggests that the relationship between trauma exposure and negative academic outcomes, including behavioral and social issues, is substantiated and well established. According to Perfect et al. (2016), trauma exposure in children is associated with lower academic achievement, lower overall IQ, and delayed speech/language function. Additionally, these children also displayed negative classroom behaviors, often associated with deficit labels and removal from classroom environments due to disruption (Perfect et al., 2016). While the connection between trauma and classroom impact is well established (see Perfect, et al., 2016, Thomas et al., 2019, and Brunzell et al., 2019), the field of research associated with trauma-informed practices in the classroom is still emerging. Many teachers and administrators also do

not feel as if they have access to adequate professional development to fully understand and implement trauma-informed practices in the classroom (Perfect et al., 2016). If we have a system in which the administrators and educators cannot implement trauma-informed care in the classroom environment, then it is the students who become collateral damage.

Thomas et al. (2019) conducted a synthesis of literature focusing on dominant frameworks, toolkits, or school-based supports being utilized as trauma-informed practices. They identified 4,056 articles and analyzed 163 (Thomas et al., 2019). Considering the high percentage of students who experience trauma, schools play a valuable role in recognizing trauma responses and connecting students to appropriate services. The studies highlighted in this synthesis of the literature did focus on positive outcomes with school-based intervention but recognized that there are barriers to successful implementation of trauma-informed practices. (Thomas et al., 2019). According to Thomas et al. (2019) some of those barriers included lack of support from administrators and teachers, competing teacher responsibilities, engagement of students, and engagement of parents. This synthesis also found that when cultural or linguistic barriers existed, those students were less likely to engage in trauma-informed care programs or services (Thomas et al., 2019). The conclusions drawn through the synthesis of literature indicated that there is no dominant framework for trauma-informed practices being used in school environments.

Of the original search criteria for the Thomas et al. (2019) synthesis of literature, an additional criterion was established to consider the overall effectiveness of trauma-informed practices in school environments. This criterion yielded 33 articles which highlighted 30 different trauma-informed interventions (Thomas et al., 2019). Given that there is little consistency surrounding the type of support that students are receiving it is challenging to

determine the overall effectiveness of trauma-informed practices. According to Thomas et al. (2019) of these 33 published articles only 13 schools used student-level data as a metric for effectiveness, but 31 of the 33 schools noted some level of “effectiveness” in outcomes of their trauma-informed program. A noted area of critique is that there was an underspecification of contextual demographics which lead to a lack of understanding specific to the intersectional qualities of the students being studied. In general, intersectional identities have not been adequately explored or applied to educational environments. According to Case (2017), “Without intersectional theory applied in the classroom, education spaces serve to both perpetuate invisible privilege by focusing on personal oppression and construct only mythical norms as worthy of earning valuable real estate within course materials and broader curricular designs” (p. 2). In essence any programs initiated in schools that do not consider an intersectional component of pedagogy continue principles/programs that lack inclusion.

Trauma-informed practices require districts, administrators, and educators to first recognize the prevalence of trauma in their student populations and then respond in a supportive manner that does not re-traumatize the affected student (SAMHSA, 2015). Teachers must work to create relationships with students so that trauma symptoms are recognizable. This requires intentional time and flexibility on the part of the educator for classroom practices, including disciplinary responses (Baroni et al., 2016). This process also requires collaboration between administrators, educators, counselors, and other mental health professions in order to create successful outcomes for students. One such study comes from Brunzell et al., (2019) which explored primary and secondary educators who received trauma-informed professional development and as a result shifted their teaching practices. The professional development received by the educators was trauma-informed positive education (TIPE) which integrated two

ideologies of trauma-informed practices as well as the recognition that vulnerable students require positive environments for safety, trust, and growth (Brunzell et al., 2019). This research followed 18 educators from public schools who were provided with the same professional development who also participated in group sessions for collaboration with the other research participants. The data was collected through interviews and a collection of journals that participants were asked to use over an 11-month period of time. The researchers wanted to understand how teachers shifted their practices and how these changes assisted them with challenges presented in their classrooms after receiving pedagogical professional development (Brunzell et al., 2019).

The data collected identified 40 unique themes through open-coding categorization and showed that the participants were able to shift their own practices of pedagogy after receiving TIPE training and support (Brunzell et al., 2019). Findings from this study suggest that educators felt better equipped to manage the complex needs of students who had encountered trauma in their classrooms. Studies that can quantify the impact of childhood trauma in order to better understand the range and quality of interventions needed allows for growth in this field of research. Promoting such pedagogical approaches is recommended due to the increasing demand and prevalence of adverse childhood experiences (McIntyre et al., 2019). The results of the Brunzell et al. (2019) study indicated that educators can engage in five “challenges” that provide, “opportunities to assess and understand student need and to select pedagogical strategies to empower student learning” (p. 609). Educators were asked to reflect while engaging in the five following challenges: (a) portraying the curriculum, (b) engaging student participation, (c) exposing student thinking, (d) containing student behavior, and (e) accommodating their own personal needs. These challenges sought to keep educators from becoming frustrated with large

pedagogical shifts and instead create small practical changes to promote growth through the five challenges. The results found that providing educators with a specific framework to consider trauma-informed practices with the multiple opportunities to practice and reflect fostered the capacity to integrate new practices into the classroom.

One critique of this research is that there is little empirical data to suggest the overall effectiveness in academic outcomes for the students' populations when teachers are properly trained through these techniques; however, the importance of quality professional training for educators is noted as a high area of importance. Promoting trauma-informed approaches in schools is increasingly recommended given that the prevalence of students with trauma continues to increase. Trauma-informed approaches provide a framework for educators to gain knowledge, change school culture, and promote student support (McIntyre et al., 2019). When considering trauma-informed practices there is no formally agreed upon framework with empirically demonstrated results. Therefore, lack of consensus determining "effectiveness" of existing programs proves to be difficult. Additionally, using the work of Chafouleas et al. (2016), contextual demographic factors (e.g., socioeconomic status, education outcomes, health outcomes) are often ignored in trauma-informed care creating discursive outcomes due to a lack of understanding or representation. While schools may believe that they are using best practice or effective trauma-informed practices, there is indeed little empirical evidence to suggest that these programs are successful.

Impact on Student Learning in Marginalized Populations

Research trends indicate that marginalized and/or underrepresented students experience the classroom differently than their "normed" peers. According to Ridgard et al. (2015), students of color are statistically more likely to experience violence (therefore experience trauma). This

trauma encounter typically occurs outside of the school; however, it can have a direct impact on classroom behavior and academic outcomes. Various studies, utilizing both qualitative and quantitative methodologies, have found that students of color, because of their disconnection from the main power structures in society, often have different academic and social outcomes in an educational environment (e.g., Alvarez, 2020; Kohli, 2017; Hertel & Johnson, 2013). In one such study, Kohli (2017) stated that “conceptualizations that allude to racial difference but are disconnected from structural analyses continue to prevail in K-12 education” (p. 182). More often those conceptualizations are coded with deficit terms (at-risk, achievement gap) that disproportionately affect students of color. Kohli created a synthesized list of 186 scholarly journal articles (from 4,000) and developed a theory coined “new racism” in the field of educational research. This term seeks to expose...

A more covert and hidden racism than that of the past—and grouped the articles into two main sections: (1) research that brings to light racism’s permanence and significance in the lives of students of Color through manifestations of what we conceptualize as (a) evaded racism, (b) “antiracist” racism, and (c) everyday racism and (2) research focused on confronting racism through racial literacy and the resistance of communities of Color. (Kohli, 2017, p. 185)

The lens that has been created through scholarly research is indeed a reflection of mainstream institutional power structures and much of this research can be qualified as systematic literature reviews. These research reviews seek to utilize themes identified from research into formalized strategies that can be used to assist students who have identities that converge with marginalization or underrepresentation. When considering how the historical education system creates a systemic imbalance of access for marginalized and/or underrepresented peoples, as well

as an overarching implication that lack of access to resources leads to a higher occurrence of experiencing trauma, it appears obvious that a research framework which takes into account the subtle nuances of identity is needed.

Students from marginalized and/or underrepresented groups experience trauma due to a disconnection from the systems of power and privilege. Categorical evidence suggests that students who have faced trauma or have been diagnosed with post-traumatic stress disorder (PTSD) are “shown to have lower standardized test scores, verbal test scores, comprehension test scores, mathematical test scores as compared to their non-victimized peers” (Hertel & Johnson, 2013, p. 24). The importance of understanding the connection between trauma and student performance lays the groundwork for research that not only considers the adverse childhood experiences but also considers contextual factors from an intersectional framework to further the idea of future ready learning.

Adding to the overall discussion, another body of scholarly literature furthers the concept of culturally responsive treatment by identifying a specific phenomenon which they call “racial trauma” (Comas-Díaz & Neville, 2019). Racial trauma is defined as race-based stress in connection to a perceived or real experience of racial discrimination (Comas-Díaz & Neville, 2019). The research suggests that people of color experience symptoms that are similar to PTSD but have an “on-going” component of injury and re-injury due to the pervasive nature of race-based stress. This qualitative study (Comas-Díaz & Neville, 2019) focused on scholarly bodies research specific to American Indians, African American, and Latinx adults. From their thorough consolidation, Comas-Díaz and Neville (2019) found a relationship between racial trauma and high levels of substance abuse, erosion of cultural identity, and a higher risk for a diagnosis of PTSD. There is clear empirical evidence suggesting that people of color who experience racial

discrimination are at a distinct disadvantage in school environments and interventions that “increase[s] in social, economic, and health equity are needed at a societal level to break the cycle of racial trauma and revictimization” (Comas-Díaz & Nevill, 2019, p. 3). Considering race as part of trauma research is needed in order to develop a comprehensive understanding of the systemic roles that racism has played out historically can be better understood. According to Alvarez (2020):

Race-conscious educators and researchers would recognize the historical use of intelligence testing and standardized tests as mechanisms for normalizing Whiteness (Dixon-Román & Gergen, 2013), and the ways in which scientists have attempted to develop biological evidence supporting and rationalizing White dominance. (Omi & Winant, 2014). (p. 609)

This consideration and understanding of embedded Whiteness identified by numerous scholars (see Dixon-Román & Gergen, 2013, Simmons, 2021 and Alvarez, 2020) asserts that proactive approaches need to be adopted rather than engaging with the current system of reactive interventions. Additional conceptual approaches are also needed in treatment and healing models that take intersectional identities into account as well as adopt methodologically sound research in the area of racial trauma.

Individuals who are from marginalized and/or underrepresented communities consistently navigate systems of injustice, including schools. Both society at large and schools have deeply integrated practices of inequality that have become socially constructed, embedded, and accepted as truth. These students need to be able to understand the complexities associated with navigating this system of injustice while processing the trauma associated. One critique of these various bodies of research would be that they fail to fully understand how trauma experiences in

the school systems itself is a mechanism for dominance. The systems in place that cause the trauma are indeed products of privilege and power. According to Scott (1990), dominance does not occur in a static setting, it requires maintenance. He goes on to say that “A good part of the maintenance consists of the symbolization of domination by demonstrations and enactments of power” (p. 45). This subversive subtext, while not explicitly defined in modern schools is indeed still a system of power that prevails and causes trauma. According to Simmons (2021), social emotional learning (SEL) has long since been tied to White comfort and White assimilation. Simmons (2021) stated:

What is even more perverse is the implicit belief that SEL skills are exactly what BIPOC students need to function in under-resourced classrooms and to smile through the pain of racism. On the other hand, for white, privileged students, SEL is about supporting college and career readiness. These opposing mindsets lead to different practices and outcomes, which ultimately perpetuate a racial hierarchy that positions white students on top. (p. 32)

In order to best meet the needs of students of color, educators must be willing to commit to racial justice in the classroom, antiracist materials and approaches, and multicultural frameworks. An acknowledgement of the race-based trauma caused in the school environment must also be fully addressed and mitigated so that students of color can actively engage in healing and trauma-informed practices.

Limitations and Need for Additional Research

Throughout the discussion above a concentrated amount of research has been compiled and analyzed. Despite information that speaks to continuing trends of racial prejudice within the education systems leading to trauma outcomes, minimal empirical research has been conducted on the effectiveness levels of trauma-informed practices. Given the complicated and often

violent history associated with marginalized individuals, more research is needed to better understand the connections between marginalized students, their experiences within the school system, and the overall connections to trauma (found both in and outside of the school system). Within this already complex system is the understanding that the multiplicity of marginalized and/or underrepresented people cannot be condensed into easily quantifiable statistics. The term intersectionality implies that an individual can experience both a point of privilege and oppression thus creating a unique experience that is different from those who may share some (but not all) components of that identity. Moving forward, more research is needed in order to understand how those unique identities connect to the experience of trauma. Pursuant to this ideology, Museus and Griffin (2011) maintain that “intersectional analyses can constitute a critical tool for understanding how identifying with multiple marginalized or underserved populations uniquely shape experiences and realities among individuals and groups in education” (p. 10). The proposed research could have direct application that allows educators to identify and support students who have had an adverse childhood experience therefore creating an intersectional lens on the trauma experiences of marginalized and/or underrepresented peoples thus promoting a greater understanding of how their intersectional identity contribute overall to inequality in the education systems.

Conclusions

Trauma has been defined as a response to emotionally and physically harmful events that impact one’s ability to engage in normative manner socially, emotionally, or behaviorally (SAMHSA, 2015). Trauma can be particularly damaging when experienced in childhood impacting development, academic abilities, and health outcomes later in life. When considering the above research questions several conclusions can be made from this synthesis of literature.

Applying an intersectional framework to the complexities of systematic oppression in conjunction with the occurrence of trauma/adverse childhood experiences in an educational setting can enable professionals to better understand how to apply theory to practice. Because research has demonstrated that multiple categories of exposure are statistically more prevalent in groups who do not have access to the main societal power structures, there is a demand for research with an intersectional approach to best incorporate the junction of identity that students encounter.

In all of the presented topics and subtopics a significant amount of research has been analyzed; however, more research is required to connect how those who are from a marginalized and/or underrepresented background experience trauma and its incorporation into the larger American school system. Within this already complex system is the understanding that the multiplicity of marginalized and/or underrepresented people cannot be condensed into easily quantifiable statistics. Moving forward, more research will be needed in order to understand how those unique identities connect to the experience of trauma. This research could have direct application that allows educators to identify and support students who have had an adverse childhood experience thereby creating an intersectional lens on the trauma experiences of marginalized and/or underrepresented peoples thus promoting a greater understanding of how their intersectional identity contributes to inequality in the education systems.

CHAPTER II: ACADEMIC OUTCOMES OF MARGINALIZED STUDENTS: AN ANALYSIS OF THE HIGH SCHOOL LONGITUDINAL STUDY

Introduction

Understanding the complex needs of a student who has had an adverse childhood experience and/or trauma in relation to teaching practices, administrative support, and programs in place is becoming a largely necessary body of research. However, according to Thomas and Crosby (2019), “empirical work informing trauma-informed teaching and teacher education that is reflected back to those audiences is less established” (p. 422). This study seeks to analyze the relationship between trauma exposure in childhood and intersectional components of identity to academic outcomes in high school. Using the capstone research from the CDC-Kaiser ACE study on adverse childhood experiences (ACE) (Center for Disease Control, 2021) to define the parameters of trauma will allow for an empirical base of definitions used throughout this study. For the purposes of this study several other definitions will be used for clarity and are based in capstone and seminal literature and research. Applying the definition from the Substance Abuse and Mental Health Services Administration (SAMHSA), trauma-informed practices/care acknowledges the prevalence of trauma, recognizing the impact of these experiences on all individuals, utilizing trauma-sensitive practices and policies, and avoiding practices that may cause re-traumatization (SAMHSA, 2015). Additionally, the term “marginalized” refers to populations of persons or groups that can include, race, ethnicity, sexual orientation, socioeconomic status, and/or any other defining factor that would render that person or group powerless in a society due to lack of access to the normative power matrix (Grant & Zwier, 2014). The data being used in this study, the High School Longitudinal Study (HSL:09), is a secondary education longitudinal data set from the National Center of Education Statistics

(NCES, n.d.). Survey data was collected from high school freshmen who were followed through their secondary and post-secondary education careers. Furthermore, through a critical review of literature an intersectional framework (Case, 2017; Davis, 2008) will be applied methodologically to better understand the complexities of marginalized components of identity within the statistical outcomes from the HSLs:09 data.

Research Question

This study examined the following research question:

RQ1 Does experiencing trauma (as defined by the CDC-Kaiser ACE study) , combined with an intersectionality of marginalized race/ethnicity, low socioeconomic status, or gender, lead to lower overall academic performance (grade point average)?

The research question was examined using the existing High School Longitudinal Study of 2009 (HSLs:09) from the National Center for Education Statistics (High School Longitudinal Study, HSLs:09, n.d.). This data set included a sample of 23,000 ninth grade students with initial data recollection in 2009, with subsequent data collections in 2012 and 2016, and a final post-secondary data collection in 2017-2018 (High School Longitudinal Study, HSLs:09, n.d.). The HSLs:09 data set includes surveys of students, parents, teachers, administrators, and school counselors encompassing demographic, academic, and social indicators. A longitudinal study allows for the collection of validity evidence as information about within-person differences are collected at multiple timepoints (Bandalos, 2018). Given that the HSLs:09 data was collected using a longitudinal research design, it provides researchers the opportunity to analyze the constructs developed over time. The HSLs:09 used specific conceptual models to guide instrument design in which the student is the main unit of analysis (Ingels et al., 2011). This

study model also incorporates interactions between family, teachers, peers, and social factors (e.g., student backgrounds, home life, outside influences) that might account for academic goal setting and outcomes (Ingels et al., 2011). This incorporation allows for the adaptation of an intersectional framework. The research hypothesis for this study is that there will be a difference in academic outcomes for marginalized individuals who have had adverse childhood experiences.

Methodological Framework

Given that the HSLS:09 dataset utilized survey responses, this study employed an intersectionally-informed framework as a methodological base connected to survey design. Intersectionality is credited to hooks (1984) and Crenshaw (1989) and is defined as a manner in which social identities and therefore power, collide and intersect, can overlap, and can cause disconnection from power and privilege. Historically, intersectional frameworks were not attributed to education research, but to critical feminist theory, specifically to understand the dynamic of Black women in the feminist movements (Davis, 2008). Crenshaw (1991), in later writings, suggested that intersectionality can be applied to all areas of marginalization thus shifting the term into a more generalized arena. The term “intersectionality” itself reveals layers of complexity associated with understanding, “historical and contemporary manifestations of identity, race, difference, and disadvantage continue to shape life chances and outcomes” (Case, 2017, p. xx). The evolution of intersectional theory in education research allows for understanding that various scholars view, practice, and apply intersectional frameworks in slightly different manners. According to Bauer et al., (2021), “Intersectionality is a theoretical framework rooted in the premise that human experience is jointly shaped by multiple social positions (e.g., race, gender), and cannot be adequately understood by considering social

positions independently” (p. 797). This framework can potentially allow for an innovative understanding of the academic outcomes for historically marginalized individuals in school settings. An example would be to consider the intersection of Black, Hispanic, and White females who all have some element of trauma exposure to their male counterparts when considering academic outcomes. Given the Black and Hispanic females have more areas of intersectional marginalization, one could hypothesize that their academic outcomes would be different than their male counterparts. Additionally, you can examine the ethnic groups between genders to test for differences in academic outcomes. For this study, the incorporation of Davis’ (2008) “doing difference” (understanding the interplay between the identified societal difference/marginalization and how those differences/marginalizations create a disconnection from power and privilege) was a consideration in this research. Also, for this research study the following working definition on intersectionality from Grant and Zwi (2014) was utilized for the purpose of creating a cohesive understanding in this research and literature:

Intersectionality theories and intersectionally-informed methodologies seek to explain, critique, and transform relationships of differences within and across one or more levels or social spheres, taking into account the workings of power through fluid, context-specific, co-constructed identity categories. (p. 11)

One goal of this research study is to understand the impact on academic outcomes of students who may have multiple intersections of marginalization such as race/ethnicity, gender, and socioeconomic status, in conjunction with adverse childhood experiences. While intersectionality and intersectional frameworks can be defined in broader terms, for the purpose of this study only race/ethnicity, gender, and socioeconomic status were considered. This research examined statistical associations found in marginalized demographic categories

(race/ethnicity, gender, socioeconomic status) who have experienced an adverse childhood experiences and compared their academic outcomes to intersectional categories as well as normed peer categorization. Additionally, this information was further dissected to examine these subgroups and their memberships to additional marginalized intersectional categories such as low socioeconomic status. Using an intersectional lens provides education research with additional information to better inform classroom practice, specifically, trauma-informed practice. While intersectional frameworks have been used primarily in qualitative studies, the emergence of this framework is becoming increasingly popular in quantitative studies (Bauer et al., 2021). A systematic review of peer-reviewed articles by Bauer et al. (2021) sought to characterize quantitative research applications that utilized the methodology of an intersectional framework. In total 707, articles met the study criteria and were analyzed for data extraction that focused specifically on identifying article characteristics including the incorporation of an intersectional framework. In this body of research, the results suggested that there was a limited understanding of intersectional frameworks in application to quantitative studies suggesting that more foundational research is needed. For the studies identified as successfully quantifying intersectionality, more than 70% were found to use demographic indicators such as race/ethnicity and socioeconomic status (Bauer et al., 2021). Interestingly, this study concluded that only 33% of the research reviewed used education outcomes in conjunction with intersectional frameworks suggesting that additional research is needed to fully understand the dynamics between intersectional identities and educational outcomes (Bauer et al., 2021).

This research study was conducted to expand on these existing gaps in literature and research. Using an intersectional framework potentially allows for the intricacies of marginalization to be fully explored through the HSLs:09 survey data thus filling a gap in the

research literature. An example of social science research where this framework could provide beneficial outcomes is for children who are in foster care as well as a school environment. Using data from the U.S. Department of Health and Human Services (n.d.), of the almost 430,000 children in foster care approximately 264,000 of those children are in school systems. Due to their intersecting marginalized identities, these students are particularly vulnerable to trauma and lower overall academic outcomes (Stewart & Cavendish, 2021). Furthered by Snyder (2018), it can be noted that marginalized racial/ethnic groups and individuals in lower socioeconomic status have statistical indicators for lower academic achievement. Piescher et al. (2014) noted that children from marginalized races who are also in foster care face even greater challenges academically. To ignore these factors in education is to ignore educational equity. As stated by Stewart and Cavendish (2021), “Children in foster care also live at the intersection of two systems—education and child welfare—that independently produce disparate outcomes based on social identities and overlap in ways that contribute to these students’ negative educational trajectory” (p. 44). Using an intersectional lens to demonstrate the ways in which the education system has continually allowed for systematic discrimination against students who have intersectional components of identity based on race/ethnicity, socioeconomic status, gender, and ACE exposure, is the first step in identifying a need within the educational community.

The use of an intersectional framework has specific assumptions that differ from positivist and post-positivist epistemologies that seek to study multiple variables at the same time (Jones & Pasque, 2015). The assumptions carried from positivist epistemologies assume that objective reality is discoverable and that “science is value neutral and without an opinion on the truth it seeks to find” (Warner et al., 2016, p. 171). Additionally, post-positivism recognizes that bias is inevitable and should be eliminated through care in research practices in order for

scientific discovery to be made (Warner et al., 2016). Neither of these epistemologies fully accounts for the dynamic understanding of identity and trauma exposure and the societal experience that different individuals can experience the same events in a contrasting manner. According to Jones and Pasque (2015), and drawing on the work of Crenshaw (1991), intersectional research and analysis include the following found actions:

1. Centering the lived experience of individuals, and specifically those of people of color and other marginalized groups;
2. Complicating identity and examining both individual and group identities;
3. Exploring identity salience as influenced by systems of power and privilege and unveiling power in interconnected structures of inequality; and
4. Advancing a larger goal of promoting social justice and social change. (Jones & Pasque, 2015, p. x)

This research study was designed to understand the quantifiable statistics but to engage in a full understanding of how the marginalized individuals experience the classroom environment in a manner that is different from their White, “normed” demographic peers as well as internally specific to group identification. In turn, the outcomes of this research can allow secondary school educators to evaluate and change classroom practices to become trauma-informed and more supportive of marginalized individuals.

Rationale of Research Design

The purpose of this study is to understand the relationship between adverse childhood experience exposure, intersectional identity categories (race/ethnicity, gender, and socioeconomic status), and academic outcomes at the secondary education level. Currently, the most accepted working definition of trauma comes from the CDC-Kaiser ACE study (CDC,

2021) which categorized the different types and subtypes of trauma into two general categories, childhood abuse and exposure (Felitti, et al., 1998). For the current study, the categorization of exposure, specifically, household dysfunction was examined. While these categories will be used as a general definer of trauma, this study sought to expand how/what trauma might be characterized by an individual who is from a marginalized community in connection with academic outcomes. Using a secondary education data source, the HSLs:09 (NCES, n.d.), the following were examined to determine the relationship between the independent variables—race/ethnicity, gender, and socioeconomic status, —and the dependent variable, academic success, as measured by overall grade point average.

Implementation of Research Study

Research Design

A survey research design was considered as the HSLs:09 data source was constructed through survey response of a sample population to collect information with the intent to analyze attitudes, beliefs, and opinions of a national sample of high school students (Creswell, 2014). Specifically, the HSLs:09 data set is considered a longitudinal survey design given that the data were collected multiple times across the same population (Creswell, 2014). The intentional combination of an intersectional framework with longitudinal survey design sought to create a specific optic within education research that allows for a deeper understanding of how marginalized individuals experience the classroom environment. Additionally, this research sought to create meaningful application of an intersectional framework that would link theory with methods and interpretation of data to better understand the associations between intersectional demographics, trauma, and academic outcomes.

Data Collection

The HSLs:09 data set, collected and administered by the National Center for Education Statistics (NCES), is considered a longitudinal survey design. The initial round of data collection occurred in 2009. The HSLs:09 is a nationally representative study of over 20,000 ninth graders who were followed through their secondary education (original data collection in 2009, with subsequent data collections in 2012 and 2016, and a post-secondary data collection in 2017-18). The data were collected through surveys of students, their parents, their math and science teachers, school administrators, and school counselors. NCES' Base-Year Data File Documentation (National Center for Education Statistics, Chapter 3, 2011) outlines the sample design process for the HSLs:09 dataset. Through this defined process, 1,889 schools in the United States were identified (in total 944 public and private schools participated). From this population, students were randomly selected to participate. Once those students were selected, their math and science teachers, counselors, and administrators were also selected for participation in the survey data collection. While basic demographic and academic information was collected, these surveys also attempt to incorporate the students' interaction with their families, teachers, peers, and community to understand student beliefs and values in association with academic outcomes and decision making (Ingles et. al, 2011). The survey data was analyzed using an expectancy-value model (this statistical model is attributed to Wigfield & Eccles, 1992 and later revisited by Eccles, 2009) which suggests that academic outcomes, decision-making, and goal setting are determined by a student's expectancy for academic success (Sharpe & Marsh, 2022). Additionally, various social factors such as student background, social context and influence, and previous experience, were used to understand how those influences affected the

outcome of academic goal setting (Ingels et al., 2011). The variables used for this study can be found below in Table 1.

Table 1

List of HSLs:09 Study Variables and Descriptions

HSLs Variable	Description	Level of Measurement
Independent/predictor variables		
X1SEX	Student's sex	Nominal
X1RACE	Student's race/ethnicity-composite	Nominal
S1LANG1ST	First language ninth grader learned to speak is English, Spanish, or other	Nominal
X1FAMINCOME	Total family income from all sources 2008	Ordinal
X1POVERTY	Poverty indicator (relative to 100% of Census poverty threshold)	Ordinal
X1SES	Socio-economic status composite	Interval
P2SPOUSE	Respondent has a spouse/partner who lives in household	Nominal
P2MARSTAT	Parent 1's marital status	Nominal
P1CHANGESCH	Number of times ninth grader has changed schools since kindergarten	Interval
Outcome variables		
X3TGPAACAD	Grade point average (GPA) for all academic courses	Interval
X3TGPA9TH	GPA: ninth grade	Interval
Weighting variable		
W1STUDENT	Base year student analytic weight	Interval

Results

For the purposes of this study, several variables were regrouped and are as follows. The income categories were combined to group them based on their proximity to the median household income in the United States, which was \$68,703 in 2020 (US Census Bureau, 2021).

The income variable was re-categorized as:

- (1) Family income less than or equal to \$34,999,
- (2) Family income of \$35,000 – \$74,999,
- (3) Family income of \$75,000 – \$114,999,
- (4) Family income of \$115,000 – \$154,999, and
- (5) Family income greater than \$155,000.

The marital status variable also re-categorized as:

- (1) Married/living in domestic partnership,
- (2) Divorced/separated,
- (3) Single, never married, and
- (4) Widowed.

Multiple regression models were used to analyze the relationship between various factors and GPA. The models were run in succession, starting with model 1, which incorporated student demographic factors, followed by model 2, which included parent demographic factors, and model 3, which incorporated socioeconomic factors. The analytic weights were used to account for the complex survey design of the HSLS:09 and to produce estimates for the target population, with appropriate standard errors. Moreover, it is noteworthy that the inclusion of parent demographic factors and socioeconomic factors did not yield any significant changes to the results obtained from the preceding model, and therefore only the additional predictor variables (parent factors in Model 2 and socioeconomic factors in Model 3) are presented, but each model included all predictors from the preceding models. The objective of conducting the successive multiple regression analyses was to determine the R-squared values, which indicate the proportion of variation in GPA that can be explained by the respective sets of predictor variables,

namely student demographic factors, parent demographic factors, and socioeconomic factors. In all models a “normed” reference was utilized and are as follows: female for gender, White, non-Hispanic for race/ethnicity, English for language, spouse/living with domestic partner for marriage status, and family income greater than \$35,000 and less than \$75,000 as well as the below poverty threshold (\$34,801) (U.S. Census Bureau, 2021).

Table 2

Factors Affecting GPA in Academic Courses Based on Student, Parent and Socioeconomic

Factors

GPA for all academic courses	<i>B</i>	SE	<i>t</i>	<i>p</i>	95% CI	
					Lower	Upper
Model 1 (Student Factors): $R^2=0.179$						
Intercept	3.06	0.01	255.62	<.001	3.034	3.081
Male***	-0.37	0.01	-28.13	<.001	-0.397	-0.346
Female	Reference					
Amer. Indian/Alaska Native, non-Hispanic***	-0.66	0.08	-8.06	<.001	-0.818	-0.498
Asian, non-Hispanic***	0.24	0.04	5.72	<.001	0.161	0.329
Black/African American, non-Hispanic***	-0.66	0.02	-30.77	<.001	-0.700	-0.616
Hispanic, no race specified***	-0.95	0.07	-14.08	<.001	-1.082	-0.817
Hispanic, race specified***	-0.47	0.02	-20.86	<.001	-0.511	-0.423
More than one race, non-Hispanic***	-0.27	0.03	-10.47	<.001	-0.318	-0.218
Native Hawaiian/Pacific Islander, non-Hispanic**	-0.22	0.09	-2.41	0.016	-0.390	-0.041
White, non-Hispanic	Reference					
Spanish	-0.05	0.03	-1.53	0.125	-0.109	0.013
Another language***	0.18	0.04	3.93	<.001	0.089	0.265
English and Spanish equally*	-0.08	0.04	-2.22	0.027	-0.156	-0.010
English and another language equally	0.08	0.05	1.50	0.134	-0.024	0.183
English	Reference					

(Table Continues)

(Table Continued)

PICHANGESCH***	-0.08	0.00	-18.10	<.001	-0.084	-0.068
Model 2 (Parent Factors): $R^2=0.228$						
Intercept	3.17	0.02	168.16	<.001	3.131	3.205
Partner***	-0.36	0.06	-5.87	<.001	-0.461	-0.230
No**	-0.18	0.06	-2.87	0.004	-0.308	-0.058
Spouse	Reference					
Divorced/Separated	-0.12	0.06	-1.83	0.067	-0.246	0.008
Single, never married***	-0.31	0.07	-4.72	<.001	-0.444	-0.183
Widowed	-0.16	0.09	-1.78	0.075	-0.335	0.016
Married/Living in domestic partnership	Reference					
Model 3 (Socioeconomic Factors): $R^2=0.250$						
Intercept	2.91	0.05	58.27	<.001	2.811	3.007
Family income less than or equal to \$34,900	0.03	0.04	0.91	0.362	-0.037	0.100
Family income \$35,000 – \$74,999	0.11	0.03	3.98	<.001	0.058	0.170
Family income \$75,000 – \$114,999	0.16	0.04	4.05	<.001	0.082	0.235
Family income \$115,000 – \$154,999	0.09	0.04	2.24	0.025	0.011	0.174
Family income greater than \$155,000	Reference					
At or above poverty threshold*	0.09	0.04	2.04	0.042	0.003	0.176
Below poverty threshold	Reference					
X1SES***	0.26	0.02	13.23	<.001	0.225	0.303

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Linear regressions were conducted to investigate the relationship between several demographic factors, including gender, ethnicity, language spoken at home, and family socioeconomic status, and GPA for academic courses. In Model 1, which focused on student demographic factors, the results indicate that male students had lower GPAs than female students ($\beta=-0.37$, $t=-28.13$, $p<.001$). Among the ethnic groups, American Indian/Alaska Native, non-Hispanic ($\beta=0.66$, $t=-8.06$, $p<.001$), Black/African-American, non-Hispanic ($\beta=0.66$, $t=-30.76$, $p<.001$), Hispanic, no race specified ($\beta=0.95$, $t=-14.08$, $p<.001$), Hispanic, race specified ($\beta=.47$, $t=-20.86$, $p<.001$), and more than one race, non-Hispanic ($\beta=0.27$, $t=-10.47$, $p<.001$)

had lower GPAs compared to white, non-Hispanic students who served as the reference group. However, Asian, non-Hispanic students had higher GPAs compared to white students ($\beta=0.24$, $t=5.72$, $p<.001$). Speaking another language at home ($\beta=0.18$, $t=3.93$, $p<.001$) was associated with higher GPAs than speaking English, while speaking English and Spanish equally ($\beta=0.08$, $t=-2.22$, $p=.027$) was associated with lower GPAs.

In Model 2, which focused on parent demographic factors, students whose parents were single and never married ($\beta=-0.31$, $t=-4.72$, $p<.001$) had lower GPAs compared to those whose parents were married/living in domestic partnership and served as the reference group. Having a partner ($\beta=-0.35$, $t=-5.87$, $p<.001$) was associated with lower GPAs compared to having a spouse.

In Model 3, which focused on socioeconomic status (SES) factors, family income between \$75,000 and \$114,999 ($\beta=0.11$, $t=3.98$, $p<.001$), family income between \$115,000 and \$154,999 ($\beta=0.16$, $t=4.05$, $p<.001$), and family income greater than \$155,000 ($\beta=0.09$, $t=2.24$, $p=.025$) were associated with higher GPAs compared to the reference group of family income between \$35,000 and \$74,999. Students whose family income was at or above the poverty threshold ($\beta=0.09$, $t=2.04$, $p=.042$) had higher GPAs compared to those below the poverty threshold. Finally, X1SES, which is a composite measure of SES ($\beta=0.26$, $t=13.23$, $p<.001$), was positively associated with GPA.

The R-squared values for the three successive models were 0.18 for Model 1 (student factors), 0.23 for Model 2 (parent factors), and 0.25 for Model 3 (socioeconomic factors). These values indicate that the inclusion of parent demographic factors and socioeconomic factors in Models 2 and 3, respectively, contributed to an increase in the amount of variation in GPA. Specifically, Model 2 explained an additional 0.05 (0.23 - 0.18) of the variation in GPA beyond

what was explained by Model 1, while Model 3 explained an additional 0.02 (0.25 - 0.23) of the variation beyond what was explained by Model 2. Overall, these results suggest that several demographic and SES factors are associated with GPA in academic courses which are connected to definitions of household dysfunction according to the CDC.

While the initial analysis provided significant results, a follow-up investigation was conducted to further investigate the intersectional influence on academic outcomes, particularly regarding race/ethnicity, gender, and language. The results of estimated marginal means comparisons, aimed at examining mean GPA scores across the different demographic groups are presented in tables 3, 4, and 5. The objective is to provide a more comprehensive understanding of how demographic factors interact to affect academic performance. The findings of this study may contribute to the development of effective educational policies and interventions targeted towards reducing academic disparities and promoting academic achievement.

Table 3 provides the results of the analysis of the categories of language use by race/ethnicity.

Table 3

Estimated Marginal Means of Language by Race/Ethnicity

First language 9th grader learned to speak	Race/ethnicity	M	SE	95% CI	
				Lower	Upper
Spanish	Asian, non-Hispanic	2.92	2.49	-1.96	7.80
	Black/African American, non-Hispanic	2.27	0.42	1.44	3.09
	Hispanic, no race specified	1.73	0.07	1.59	1.87
	Hispanic, race specified	2.28	0.02	2.23	2.32
	More than one race, non-Hispanic	2.07	0.83	0.44	3.70
	White, non-Hispanic	2.03	0.27	1.49	2.56
Another language	Amer. Indian/Alaska Native, non-Hispanic	2.28	0.23	1.84	2.72

(Table Continues)

(Table Continued)

	Asian, non-Hispanic	3.25	0.06	3.13	3.37
	Black/African American, non-Hispanic	2.52	0.13	2.26	2.79
	Hispanic, no race specified	1.36	0.66	0.054	2.66
	Hispanic, race specified	2.52	0.24	2.05	2.99
	More than one race, non-Hispanic	2.74	0.12	2.50	2.99
	Native Hawaiian/Pacific Islander, non-Hispanic	2.40	0.19	2.02	2.78
	White, non-Hispanic	2.84	0.08	2.68	2.99
English and Spanish equally	Amer. Indian/Alaska Native, non-Hispanic	2.04	0.59	0.89	3.20
	Asian, non-Hispanic	3.64	3.83	-3.87	11.15
	Black/African American, non-Hispanic	1.91	0.14	1.64	2.18
	Hispanic, no race specified	1.70	0.19	1.34	2.07
	Hispanic, race specified	2.26	0.04	2.19	2.33
	More than one race, non-Hispanic	2.57	0.26	2.06	3.08
	White, non-Hispanic	2.31	0.15	2.02	2.59
English and another language equally	Amer. Indian/Alaska Native, non-Hispanic	1.43	0.52	0.40	2.46
	Asian, non-Hispanic	3.09	0.08	2.94	3.24
	Black/African American, non-Hispanic	1.74	0.16	1.43	2.06
	Hispanic, race specified	2.56	0.21	2.15	2.96
	More than one race, non-Hispanic	2.93	0.16	2.61	3.25
	Native Hawaiian/Pacific Islander, non-Hispanic	2.61	0.33	1.96	3.26
	White, non-Hispanic	2.96	0.09	2.78	3.14
English	Amer. Indian/Alaska Native, non-Hispanic	2.14	0.09	1.96	2.31
	Asian, non-Hispanic	3.01	0.06	2.90	3.12
	Black/African American, non-Hispanic	2.13	0.02	2.09	2.16
	Hispanic, no race specified	2.01	0.18	1.66	2.36
	Hispanic, race specified	2.29	0.02	2.25	2.33
	More than one race, non-Hispanic	2.51	0.02	2.46	2.56

(Table Continues)

(Table Continued)

Native Hawaiian/Pacific Islander, non-Hispanic	2.77	0.11	2.56	2.993
White, non-Hispanic	2.78	0.01	2.77	2.80

Note: Covariates appearing in the model are evaluated at the following values: Number of times ninth grader has changed schools since kindergarten = 1.18, CI = confidence interval.

A comparison of race/ethnicity within each language revealed significant differences in their estimated marginal means for GPA. Among White students, English (M=2.79) had significantly higher estimated marginal means for GPA than English and Spanish equally (M=2.31), $p < .05$. Among the more than one race (non-Hispanic) students, English (M=2.52) had significantly lower estimated marginal means for GPA than English and another language equally (M=2.93), $p < .05$. Among Black/African American (non-Hispanic) students, speaking another language (M=2.52) had significantly higher estimated marginal means for GPA than English (M=2.13), $p < .05$, and English and another language equally (M=1.74), $p < .05$. Among Asian (non-Hispanic) students, English (M=3.01) had significantly lower estimated marginal means for GPA than another language (M=3.25), $p < .05$. There were no other significant differences.

Table 4 provides the results of the analysis of the categories of race/ethnicity and sex.

Table 4

Estimated Marginal Means of Race/Ethnicity by Sex

Race/Ethnicity	Sex	M	SE	95% CI	
				Lower	Upper
Amer. Indian/Alaska Native, non-Hispanic	Male	1.95	.234	1.49	2.41
	Female	2.00	.211	1.58	2.41
Asian, non-Hispanic	Male	3.01	.914	1.22	4.80

(Table Continues)

(Table Continued)

	Female	3.35	.916	1.56	5.15
Black/African American, non-Hispanic	Male	1.94	.103	1.74	2.15
	Female	2.29	.100	2.09	2.48
Hispanic, no race specified	Male	1.66	.180	1.31	2.01
	Female	1.74	.210	1.33	2.15
Hispanic, race specified	Male	2.25	.067	2.12	2.38
	Female	2.51	.069	2.38	2.65
More than one race, non-Hispanic	Male	2.44	.182	2.08	2.80
	Female	2.69	.181	2.34	3.04
Native Hawaiian/Pacific Islander, non-Hispanic	Male	2.20	.153	1.90	2.50
	Female	2.99	.175	2.64	3.33
White, non-Hispanic	Male	2.42	.069	2.28	2.55
	Female	2.75	.070	2.61	2.88

Note: Covariates appearing in the model are evaluated at the following values: Number of times ninth grader has changed schools since kindergarten = 1.18, CI = confidence interval.

A comparison of males and females within each race/ethnicity group revealed significant differences in their estimated marginal means for GPA. Among Native Hawaiian/Pacific Islander students, females (M=3.00) had significantly higher estimated marginal means for GPA than males (M=2.20), $p < .05$. Similarly, among White students, females (M=2.75) had significantly higher estimated marginal means for GPA than males (M=2.42), $p < .05$. There were no significant differences between males and females within the remaining race/ethnic groups.

Table 5 provides the results of the analysis of the categories of language use and sex.

Table 5

Estimated Marginal Means of Language Use by Sex

Race/Ethnicity	Sex	M	SE	95% CI	
				Lower	Upper
Spanish	Male	2.05	0.45	1.17	2.92
	Female	2.38	0.45	1.51	3.26

(Table Continues)

(Table Continued)

Another language	Male	2.40	0.11	2.19	2.62
	Female	2.58	0.11	2.36	2.79
English and Spanish equally	Male	2.17	0.56	1.08	3.26
	Female	2.53	0.56	1.43	3.62
English and another language equally	Male	2.36	0.12	2.13	2.58
	Female	2.59	0.11	2.37	2.81
English	Male	2.27	0.03	2.20	2.33
	Female	2.64	0.04	2.56	2.72

Note: Covariates appearing in the model are evaluated at the following values: Number of times ninth grader has changed schools since kindergarten = 1.18, CI = confidence interval.

A comparison of males and females within each language group revealed one significant difference in their estimated marginal means for GPA. Among English, females ($M=2.64$) had significantly higher estimated marginal means for GPA than males ($M=2.27$), $p<.05$. There were no significant differences between males and females within the remaining language groups. Overall, these findings suggest that the relationship between race/ethnicity, gender, and GPA is complex, and it is important to consider intersectionality when examining these relationships to better understand the unique experiences of different groups of students.

Contributions to New Knowledge and Scholarship

Acclaimed race scholar Richard Valencia (2012) contended that historically deficit theories were disproportionately applied to marginalized people and the mainstreaming of those ideas is still prominent in the American education system. Valencia further asserted that this dominant structure of power focuses on deficit behavior outcomes of the student rather than the system that has disregarded their unique sectionality. By creating condemnation of a people rather than solutions that seek to dismantle systematic power structures, individuals who are in marginalized and/or underrepresented groups continue to be discriminated against in schools. This concept of an “educational debt” (as coined by Ladson-Billings, 1991) asks researchers to

shift focus away from the idea of an “achievement gap” (which puts blame on the individual) to the consideration that, “historic, economic, sociopolitical, and moral components” have led to inequitable and naturalized structures of power in the American education system that actively work against individuals from marginalized or underrepresented groups (Ladson-Billings, 2006, p. 4). Creating authentic change in the education system requires a delicate balance of differentiation and equitable problem solving. To further complicate these injustices, the research suggests that vulnerable populations are more likely to experience an adverse childhood experience and that experience has a negative impact on academic outcomes (Piescher, 2104).

This research study intentionally included an intersectional-informed framework (Case, 2107; Davis, 2008; Grant & Zwier, 2014) to better understand the contextual and cultural relevance that these factors play in academic outcomes for marginalized individuals who have experienced trauma. The use and application of an intersectional framework can track and frame how this issue has been responded to historically and the evolution of more current solution-based ideas (Stewart & Cavendish, 2021). For the purposes of this study, being able to consider the ways in which students and families are impacted by structural inequalities and consider their impacts on trauma exposure and academic outcomes could lead to new and relevant findings with the field of education research. According to Tefera et al. (2018), the use of an intersectional framework will “account for the dynamic and complex ways that race/ethnicity, class, gender, sexuality, religion, citizenship, ability, and age shape individual identities and social life” (p. 33). In conjunction with trauma-informed practices, this study has the potential to address current gaps in the research literature, specifically the experience of marginalized individuals through an intersectional framework.

Limitations

Given the nature of this study and the sensitive topics being accessed for research including outcomes for marginalized individuals, specific care needs to be taken to ensure that this information is not used to further abuse or denigrate vulnerable populations. Time and care will need to be used in this study to ensure value neutrality and avoid deficit labels, themes, and outcomes (Esposito & Evans-Winters, 2022). There is noted conflict in labeling groups as marginalized and or vulnerable; however, given the history of abuse in the United States to these groups the labels seek to protect rather than to promote further deficiency of agency.

Specific to the HSLs:09 data set, limitations include that the teacher data set is not representative of all teachers, but rather depicts contextual information of students (as they are the unit of study) (NCES, 2011). Other limitations of the HSLs:09 data is that it was collected in the United States and is meant to be representative of all U.S. ninth graders, therefore this data is only applicable to the country of origin. Finally, the HSLs:09 data does not include information on special education services or survey data from special education teachers. This lack of inclusion may weaken intersectional connections in the research conclusions. When considering the results of this study the leap to create practical advice for classroom implementation cannot be made due to the lack of empirical evidence surrounding successful outcomes of programs in place. While the use of an intersectional framework can seek to create more supportive and informed classroom environments, the need for future studies, specific to the implementation and outcomes of trauma-informed practices would be beneficial to education research. More research is required to connect how individuals from a marginalized and/or underrepresented background experience trauma and its incorporation into the larger American school system.

Conclusions

The purpose of this study was to understand the connection between adverse childhood experience exposure, intersectional identity, and academic outcomes at the secondary education level. Applying an intersectional framework to the complexities of systematic oppression in conjunction with the occurrence of trauma/adverse childhood experiences in an educational setting can allow for professionals to better understand how to apply theory to practice. Given the nature of this dataset it was not possible to fully understand and connect the components of trauma association to the data outcomes. However, this data does lend itself as an empirical base for future research to include connections to trauma, specifically how students experience exposure in school systems. Potential future studies could include a qualitative design in which students who have identification in categories of marginalization are interviewed about their schooling experience.

Specifically, future research would rely on critical quantitative analysis in which an anti-positivistic lens would be utilized to examine each step of the research process to ensure that the impacted communities are not subject to further harm. As a researcher constant self reflection will be necessary in order to ensure that all components of this future research are done with extreme care; including choosing a framework, reading works from the same marginalized communities being interviewed, and relying on voices from those communities to be the experts. The engagement of a critical (whether it be post or anti positivist) framework leans towards the pedagogy of Critical Race Theory (hooks 1992; Chrenshaw, 1995; and Ladson-Billings 1995) which makes the assumption that racism (and its overarching impacts) are central and permanent components of society and the American schooling system. There is a significant need for research that furthers understanding of the complexities that marginalized/underrepresented

students navigate and seeks to improve the schooling experience for those populations working to create an equitable education experience for all students.

Discerning the encompassing and historic building blocks of research associated with the American education system, it is evident that marginalized and underrepresented peoples are more likely to have a deficit-based experience in the school setting. Moreover, this system of dissociation with traditional power systems inclines individuals who are marginalized and underrepresented to experience trauma. Through the above analysis, we can conclude that demographic factors such as household composition (e.g., a single parent home versus a home with two partners) and SES have the greatest impact on variance in GPA scores. Additionally, adopting an intersectional framework allows for a merger between the theoretical constraints that marginalized/underrepresented individuals endure with practical guidance on how to best support those students. This research study has conclusively demonstrated that multiple categories of exposure are statistically more prevalent in student demographic groups who do not have access to the main societal power structures. There is a demand for research with an intersectional approach to best incorporate the junction of identity that students encounter.

CHAPTER III: TRAUMA-INFORMED PRACTICES: THE ROLE AND RESPONSIBILITY OF EDUCATORS IN CONNECTION TO EQUITY AND SOCIAL JUSTICE

Introduction

Trauma is not just a memory, it is a response, a reaction. Those reactions can be seen in students who have faced trauma both large and small attempting to navigate through the complexity of those emotions all while being asked to attend to normative classroom activities and expectations. Compounding this issue is the fact that marginalized students face a unique set of circumstances connected to trauma exposure. This systemic and problematic outcome often creates a “loop” of negativity for students in their classroom behaviors and academic outcomes. All students deserve an equitable educational experience and educators play a significant role in ensuring that practice. The purpose of this article is to guide educators through the complex history of adverse childhood experiences in connection to marginalized identity through the use of an intersectional framework. The overarching goal of this article is to further convey the complexities associated with these themes and ask educators to acknowledge their own role (and often privilege) in recognizing and responding to students who have had exposure to adverse childhood experiences in order to create a more equitable classroom experience. In essence the intention isn't to just respond to trauma but to consider the systems in place that cause trauma and reflect on one's classroom practices in relation to equitable trauma-informed practices.

A Brief Review of Literature and Definitions

Understanding the complex needs of a student who has had an adverse childhood experience and/or trauma in relation to teaching practices, administrative support, and programs in place is becoming a largely necessary body of research. However, according to Thomas and Crosby (2019), “empirical work informing trauma-informed teaching and teacher education that

is reflected back to those audiences is less established” (p. 422). This study analyzed the relationship between trauma exposure in childhood and intersectional components of identity to academic outcomes in high school. According to Thomas and Crosby (2019) students who have experienced trauma are more likely to have lower academic outcomes. Furthering this we have students who are from marginalized backgrounds who experience trauma in unique manners due to their race/ethnicity, gender, or socioeconomic status. The combination of marginalizations creates a compound system of trauma and cycles of re-traumatization (SAMHSA, 2015).

Research trends indicate that marginalized and/or underrepresented students experience the classroom differently than their “normed” peers. According to Ridgard et al. (2015), students of color are statistically more likely to experience violence (therefore experience trauma). This trauma encounter typically occurs outside of the school; however, it can have a direct impact on classroom behavior and academic outcomes. Various studies, utilizing both qualitative and quantitative methodologies, have found that students of color, because of their disconnection from the main power structures in society, often have different academic and social outcomes in an educational environment (e.g., Alvarez, 2020; Kohli, 2017; Hertel & Johnson, 2013). In one such study, Kohli (2017) stated that “conceptualizations that allude to racial difference but are disconnected from structural analyses continue to prevail in K-12 education” (p. 182). More often those conceptualizations are coded with deficit terms (at-risk, achievement gap) that disproportionately affect students of color. Kohli created a synthesized list of 186 scholarly journal articles (from 4,000) and developed a theory coined “new racism” in the field of educational research. This term seeks to expose...

A more covert and hidden racism than that of the past—and grouped the articles into two main sections: (1) research that brings to light racism’s permanence and

significance in the lives of students of Color through manifestations of what we conceptualize as (a) evaded racism, (b) “antiracist” racism, and (c) everyday racism and (2) research focused on confronting racism through racial literacy and the resistance of communities of Color. (Kohli, 2017, p. 185)

The lens that has been created through scholarly research is indeed a reflection of mainstream institutional power structures and much of this research can be qualified as systematic literature reviews. When considering how the historical education system creates a systemic imbalance of access for marginalized and/or underrepresented peoples, as well as an overarching implication that lack of access to resources leads to a higher occurrence of experiencing trauma, it appears obvious that a research framework which takes into account the subtle nuance of identity is needed.

For the purposes of this article several definitions will be used for clarity and are based in capstone and seminal literature/research. Applying the definition from the Substance Abuse and Mental Health Services Administration (SAMHSA), *trauma-informed practices/care* acknowledges the prevalence of trauma, recognizing the impact of these experiences on all individuals, utilizing trauma-sensitive practices and policies, and avoiding practices that may cause re-traumatization (SAMHSA, 2015). Additionally, the term *marginalized* refers to populations of persons/groups that can include, race, ethnicity, sexual orientation, socioeconomic status and/or any other defining factor that would render that person/group powerless in a society due to lack of access to the normative power matrix (Grant & Zwier, 2014). Furthermore, an *intersectional framework* (Case, 2017; Davis, 2008) will be referenced methodologically to better understand the complexities of marginalized components of identity within the concept of equity-based trauma-informed practices.

When contemplating the complex nature of trauma and the lack of responsiveness in educators in the American school system, more research is needed to understand how to better support students who have had an adverse childhood experience that intersects multiple components of identity. Many programs that seek to be trauma sensitive are often topical and focus on a change to a single component of identity which limits the ability to create a full synthetic understanding of the root issues of trauma (Ladson-Billing, 2006). Meaning, the programs themselves do not seek to dismantle the systems of power that are creating the inequities that ultimately are leading to the causes of trauma. This is why the use of an intersectional framework is helpful when considering equity in trauma-informed classroom practices.

The history of intersectional practices in education initially identified by Ladson-Billings (2006) were engaged as an analogy in Ladson-Billings and Tate's (1995) generative analysis of Whiteness in education through the lens of critical race theory. The term "intersectionality" itself reveals layers of complexity associated with understanding, "historical and contemporary manifestations of identity, race, difference, and disadvantage continue to shape life chances and outcomes" (Case, 2017). The evolution of intersectional theory in education research allows for understanding that various scholars view, practice, and apply intersectional frameworks in slightly different manners. According to Bauer et al., (2021), "Intersectionality is a theoretical framework rooted in the premise that human experience is jointly shaped by multiple social positions (e.g., race, gender), and cannot be adequately understood by considering social positions independently" (p. 797). This framework can potentially allow for an innovative understanding of student outcomes (both behavioral and academic) in connection to educators' recognition of the systemic issues that marginalized students experience in the school system.

Association of Marginalized Populations to Trauma

Historical Background

A capstone body of research on the subject of trauma is the Centers for Disease Control's (CDC) research at Kaiser Permanente from 1995 to 1997 (CDC, 2021). The research study had two different data collections totaling 17,000 individuals that completed confidential surveys on the respondent's childhood experiences as well as current health status and behavior patterns. The outcome goal of the data collection was to understand how the experience of an adverse childhood experience (ACE) may impact the future health and well-being of a child (CDC, 2021). The results of the CDC-Kaiser ACE research study led to the development of seven overall divisions: (a) psychological abuse (b) physical abuse, (c) contact sexual abuse, (d) exposure of substance abuse, (e) exposure to mental illness, (f) violent treatment from a parent or guardian, and (g) exposure to criminal behavior. These were further divided into two general categories: childhood abuse and exposure (Felitti, et al., 1998). The study linked the amount of reported adverse childhood experiences to overall statistical outcomes such as, exposure to one category had a high probability (mean 80%) of exposure to other categories of ACE (Felitti, et al., 1998). Furthermore, the study found that this high probability of multiple exposure can be associated with health risk factors including early death (CDC, 2021). While this information is specifically related to health outcomes, the CDC-Kaiser ACE study can be utilized by understanding the adverse effects of trauma and in turn recognizing that those outcomes would negatively impact children in school settings. This seminal work changed the perspective of the role of trauma on development and long-term impacts. However, there is a need to provide additional, meaningful support to students that goes beyond identifying the categories of adverse exposure they are encountered. Indeed, a more nuanced and global response is necessary in

order to deconstruct myths associated with the experiences of marginalized groups in relation to traumatic experiences. Specifically, this paper will explore the intersectional categories of race/ethnicity, gender, and socioeconomic status and its association with adverse childhood experiences in order to understand the potential connections to ACE with the intention to reconstruct responses from educators, schools, and districts in order to curate equity for marginalized students.

Race/Ethnicity

In reviewing the category of race/ethnicity and the proximity to trauma there are various bodies of research that connect the experience of marginalized race/ethnicity with trauma symptoms. One such body of scholarly literature identifies a phenomenon known as “racial trauma” (Comas-Díaz & Neville, 2019). Racial trauma is defined as race-based stress in connection to a perceived or real experience of racial discrimination (Comas-Díaz & Neville, 2019) The research suggests that people of color experience symptoms that are similar to PTSD but have an “on-going” component of injury and re-injury due to the pervasive nature of race-based stress. This qualitative study (Comas-Díaz & Neville, 2019) focused on scholarly bodies of research specific to American Indians, African American, and Latinx adults. From their thorough consolidation, Comas-Díaz and Neville (2019) found a relationship between racial trauma and high levels of substance abuse, erosion of cultural identity, and a higher risk for a diagnosis of PTSD. There is clear empirical evidence suggesting that people of color who experience racial discrimination are at a distinct disadvantage in school environments and interventions that “increase[s] in social, economic, and health equity are needed at a societal level to break the cycle of racial trauma and revictimization” (Comas-Díaz & Neville, 2019, p. 3).

Taking into account race as part of trauma research is needed in order to develop a comprehensive understanding of the systemic roles that racism has played out historically can be better understood. According to Alvarez (2020):

Race-conscious educators and researchers would recognize the historical use of intelligence testing and standardized tests as mechanisms for normalizing Whiteness (Dixon-Román & Gergen, 2013), and the ways in which scientists have attempted to develop biological evidence supporting and rationalizing White dominance. (Omi & Winant, 2014). (p. 609)

This consideration and understanding of embedded Whiteness identified by numerous scholars (see Dixon-Román & Gergen, 2013, Simmons, 2021 and Alvarez, 2020) asserts that proactive approaches need to be adopted rather than engaging with the current system of reactive interventions. Additional conceptual approaches are also needed in treatment and healing models that take intersectional identities into account as well as adopt methodologically sound research in the area of racial trauma.

Gender

The impact of gender (for the purpose of this paper gender will be considered through a binary lens of “male” and “female”). The author understands and supports the notion of gender as more complex than binary categories but is limiting the definition to align with the gender categories from the original ACE study) its impact on trauma is less widely discussed but according to scholarship has significant impact on the marginalized female gender. According to Epstein and Gonzalez (2021) females report higher rates of ACE categorization than males in all categories. Compounding these issues is the fact that females may also be experiencing multiple marginalizations simultaneously (such as a marginalized race/ethnicity as well as gender) that

lead to high levels of ACE exposure and compound trauma outcomes. Furthered in a study by Haahr-Pedersen, et al. (2020) females (in comparison to males) had significantly higher levels of post traumatic stress disorder, complex post traumatic stress disorder, depression, generalized anxiety, and overall lower levels of psychological well-being (p. 5). The implication of this study signifies that differences of gender in ACE exposure and categorization can promote a nuanced understanding of the disproportionate trauma impacts and long-term effects in females. Further analysis from Wamser-Nanny and Cherry (2018) demonstrated that, “both the chronicity of trauma and the social context in which it occurs (e.g., specific settings of family structures, available resources, social support, and gendered social roles) may help explain the increased vulnerability to PTSD [post traumatic stress disorder] observed in women (p. 189). This research highlights the fact that females experience a continuous and chronic exposure to adverse experiences therefore increasing the risk of a diagnosis of PTSD. Additionally gendered social roles have been found to serve as a conduit of risk for PTSD, meaning, given societal gender roles for women, they will have higher rates or trauma-related diagnosis (Kimerling et al., 2014). Understanding the role of gender and other contextual factors in connection to trauma and trauma outcomes leads to a greater overall understanding of how power and privilege are at play in all systems including schools.

Socioeconomic Status

Exposure to adverse experiences in childhood have known and lasting long-term impacts on individuals. For individuals who have diminished potential to generate income and reside in a low socioeconomic position there is statistically a higher chance that they will encounter an ACE (Assari, 2020). According to Assari (2020), “Parental education and family income had statistically significant protective (negative) effects on childhood trauma, indicating children

from high income and highly educated families were exposed to a lower level of childhood trauma.” (p. 1). This research also noted that having an intersectional identity (such as being black and having a low socioeconomic status) compounded trauma exposure. Several bodies of research (Mock & Arai, 2010, Lantz et al., 2005, and Berg et al., 2015) indicate that having a low socioeconomic status (SES) is correlated to higher levels of stress which leads to overall lower health functions. When compared intersectionality with individuals of similar demographics who have a higher SES that higher socioeconomic status is a potential protective factor for trauma exposure. (Mock & Arai, 2010). These results also indicate that those individuals who have a higher SES status would likely have access to additional resources that support physical and mental development thus decreasing the risk for trauma exposure. Additionally, Douglas et. al. (2020) discusses the concept of neighborhood income disadvantage (NID) as a system of oppression linked to low socioeconomic status with a high correlation to marginalized race/ethnicity. As stated by Douglas et al. (2021) in reference to the work of Knapp et al. (2006) when discussing neighborhood income disadvantage, they state,

Although NID is often linked to race/ethnicity as an associated stressful life condition, it is a distinct system of oppression that can also lead to higher levels of trauma exposure and PTSD due to its association with poorer environmental conditions, higher crime rates, and increased income-related barriers to obtaining mental health services (p. 2).

This particular element of trauma is often generational and pervasive creating a cycle of exposure and re-traumatization. This continued exposure is statistically linked to development of trauma responses as well as the potential diagnosis of mental health disorders such as anxiety and depression (Andrews et. al., 2019). When working with populations of students who are

from low socioeconomic backgrounds it is imperative to assess all cultural factors associated to fully understand the trauma impact and create a more nuanced response of understanding. In particular, understanding the high probability of intersectional elements of trauma exposure in this population is critical to providing additional support.

Issues of Equity in Trauma-Informed Education

Trauma-informed practices are at a crossroads in education. There has been enough exposure through research and scholarly articles that most educators are familiar with the concept. The issue remains that many schools have not (or cannot due to lack of resources) fully incorporated trauma-informed practices (Stratford et. al., 2020). Additionally, Stratford et al. (2020) concluded that very few schools have created trauma-informed practices that encompass change at the school, district, and systemic levels. This is echoed by Venet (2021) when she states, “Schools are engaged in a trial-and-error process as they implement trauma-informed practices, leading to wonderful gains in some places and missing the mark in others.” (p. xvii). Areas of critique in trauma-informed practices are largely centered around the fact that these initiatives often create additive programs that are unwilling to consider issues of equity (such as race/ethnicity, gender, and socioeconomic status) and how marginalized groups lack of access to power create additional trauma (Greenstein, 2019). This begs a shift for educators to consider what equity “looks like” in trauma-informed education. Students who are actively engaged in intersectionality with multiple marginalizations do not need a further deficit oriented label associated with trauma exposure. Scholars Khasnabis and Goldin (2020) state that simply responding to the seen trauma response (while a good starting place) is not enough. They in turn suggest that a shift in education needs to be noted that aligns the conceptualization of equity to current trauma-informed practices. According to Khasnabis and Goldin (2020), they state,

“Treating trauma as only an individual-level problem, when it is not, has the unfortunate and perhaps somewhat predictable effect of blaming children and families for challenges they did not cause” (p 46). This shift does not mean that individual efforts for children will not be made to ensure that they receive accommodations, counseling, or access to additional resources. It does mean that educators have to be willing to understand that their own privilege and classroom practices may indeed be causing harm to already marginalized populations. These two pieces cannot operate alone, but rather need cohesion in order to create globally minded, pro-active approaches to trauma-informed practices. A tangible example used by Venet (2021) details how an educator might respond to a child getting bullied for being from a low income background. Traditional interventions such as stopping the bullying, restorative circles to repair relationships, and access to a counselor to manage feelings of anxiety or grief are all necessary “first steps”. According to Venet (2021) we must go beyond only addressing the student’s trauma and seek to understand the conditions within the school that created the bullying behaviors or seek to understand how the school environment might be accentuating or emphasizing students in low income situations. This explicit shift goes beyond asking students to develop coping strategies for their areas of marginalization but also works to end or change the systems creating the marginalization. Ensuring that students have full and equitable access to their education requires a foundational transformation that starts with educators and their own awareness of the systems in place and their impact on marginalized students. Trauma and the responses given within schools is a matter of equity that at current disproportionately targets marginalized students (Alvarez, 2020). By recognizing that trauma-informed practices are indeed a component of providing equity oriented educational experiences for marginalized students we as educators are taking an important step towards necessary systemic change.

Trauma-Informed Practices as a Form of Social Justice

Trauma-informed practices must consider both the individual trauma that has been encountered as well as the systems in place which have led to or heightened the experience of trauma. Relying on the work of Graybill et al. (2013) we will orient the term social justice as, “the elimination of systemic oppression and institutional barriers with the goal of ensuring equitable access to opportunities and resources for all” (pp. 218-219). There is a need for educators to reorient their thoughts to include trauma-informed practices as an extension of social justice practices and in turn understand the overall impact that systemic injustices have on students (specifically those who identify with categorizations of marginalization). Additionally, educators must recognize their own privilege and bias that they may have in order to create an environment of equity. Using the work of Blitz et al. (2016), a mixed-method study was conducted on a diverse school population that had primarily white educators and support staff. This study found that students from marginalized backgrounds (race/ethnicity and low socioeconomic status) disproportionately received more disciplinary referrals than their non-marginalized peers (Blitz et al., 2016). In this particular school, professional development was provided to develop a deeper understanding of the historical and systemic issues and found that educators struggled to connect systemic injustice to classroom behaviors associated with trauma (Blitz et al., 2016). Educators need to be willing to recognize their own positionality and connect that realization to change in classroom practices. The reality is that not all schools will have access to or choose to engage with professional development that considers trauma-informed practices as an integral component of social justice. However, it is important to discuss the role of educator’s perception and knowledge in connection to culture-bound trauma and the formation of trauma-informed practices.

Continuing to rely on Graybill's (2016) definition of social justice, the school system becomes an ideal place to identify and support students who need trauma support or other mental health care options. As noted by Ridgard et al. (2015), Black and Hispanic students statistically have less access to mental health interventions, using the schools as a system of care removes institutional barriers that might traditionally impact treatment options. Additionally, Ridgard (2015) stated, "Because students from racial/ethnic minority and low socioeconomic backgrounds may disproportionately experience some potentially traumatic events, provision of trauma-informed care in schools may minimize disparities in academic, behavioral, and psychosocial outcomes related to the experience of trauma" (p. 13). Understanding these two fundamental elements of knowledge shifts the issue away from "just" a mental health issue into a larger issue of social justice. Educators need to approach equity based trauma-informed practices with a duality that not only supports students and their individual needs but also challenges and disrupts the systems causing the trauma.

Pro-Active Classroom Practices

For educators, the shift to more equity-centered, trauma-informed practices may or may not be a school/district wide priority. There are, however, practical, and pro-active steps you can take that seek to create positive change on a classroom level. Moving towards equity-centered practices requires a purposeful shift that considers a personal look at classroom practices in which we push back against bias. This is echoed by Gorski (2018) when he defined a framework which he calls "equity literacy." According to Gorski (2018), equity literacy is "the knowledge and skills educators need to become a threat to the existence of bias and inequity in our spheres of influences" (p. 17). This means educators need to see oppression in their own practices and classroom materials in relation to marginalized groups. For example, a teacher might need to

review student materials and ensure that they are from diverse perspectives that go beyond just highlighting all of the atrocities that a marginalized groups has experienced (which can be a form of race-based trauma). Another really simple thing you can do is look at the posters and visual images in your classroom – are they culturally responsive to your student population? Do your students “see themselves” in any of the images? Also, if your classroom has a library, as students to provide you with some selection they might want to read and then also ensure the texts that you are choosing provide diverse perspectives. While we may not have the ability to activate change at any other level, we do have an obligation to look inward and respond actively in our own classrooms. Specifically, understanding the nuance of how lacking access to the main power structures impedes equitable educational opportunities and then focus on purposeful shifts that can be made in order to have less classroom disparity. Venet (2021) proposed two necessary shifts: (a) a shift from a reactive stance, and (b) a shift from a savior mentality. Venet’s shift from a reactive stance is one in which we identify who has been traumatized and support them, to a proactive approach. Trauma informed practices are universal and benefit everyone. What do these practices look like in the classroom? The adoption of universal trauma-informed practices assumes that all children benefit from connection, trust, and autonomy in order to build systems of independence. For example, educators often get caught in believing that they need to know to have direct information of what type of trauma a student has experienced in order to respond in a manner that is trauma sensitive. This shift towards the adoption of universal trauma informed practices means that your classroom is set up in a manner that students do not have to identify their traumas in order to receive support. A specific and common classroom issue is tardiness. Oftentimes students have no control over how or when they get to school so instead of a deficit/punishment mentality when a student walks in late a

teacher could greet that student with joy, let them know they are glad to be seen and then, when there is a lull in class, catch that student up. This simple shift tells a student they are valued no matter what they may have experienced that morning or continue to experience as a function of their home situation. In fact, asking a child to recount their trauma, even in a therapeutic environment, can indeed lead to re-traumatization (Perry & Szalavitz, 2017). This is in direct contrast to one of the largest tenants of trauma-informed practices. When we categorize students as having either experienced trauma or not experienced trauma, we send them an inherent message of deficit for those who have indeed experienced trauma (Venet, 2021). Moving beyond ACE scores and other metrics that seek to categorize students and capitalize on differences there is a need as educators to push back from that narrative and encompass a proactive approach that is beneficial for all students. One such scholar, Winninghoff (2020) reiterates this ideology when she states,

The ACE framework does not offer students a message of hope. It sends them a message that there is something wrong with them because something happened to them, and if they fail to change they will likely face a dismal future. As educators, when we project a future for our students, we are also contributing to limiting and shaping it. It is this level of influence that puts us as educators in a powerful position to change deficiency-based narratives, and to critically analyze the growing ACE movement within and beyond school settings. (p. 41)

The intentional disruption of deficit response, labels, and reactions is imperative as we work towards a universal classroom approach in which educators are critically analyzing their materials, lessons, and relationships with and for students. This universal approach requires that your classroom be a place where safety and trust are established and upheld (Venet, 2021). This

approach also asks educators to acknowledge the complex factors associated with trauma exposure specifically in connection to marginalized individuals.

Venet's (2021) second shift is the shift from a savior mentality, in which we see ourselves as rescuing broken kids, to unconditional positive regard, a mindset that focuses on the inherent skills, capacities, and value of every student (shift from, "I am here to save you" to "I am here to support you"). Educators should not aim to heal, fix, or save, but to be connection makers and just one of many caring adults in a child's life. Educators need to be aware that the relationships they are building with students have a duality that can be both positive and negative. A teacher-to-student relationship that becomes more about exertion of power or projection of dominant belief sets creates a potential for further deficit ideals to be imposed on the student. These deficit labels place blame on the child, parent(s)/guardian(s) and other culture-bound aspects, rather than seeking to understand the larger systemic issues leading to the trauma exposure (Venet, 2021). While we know that students thrive in healthy relationships with their teachers, it can be hard to establish equity when there are inherent inequities in power (between teachers and students). The power inequity is where the potential to present as a "savior" can exist. This can be further compounded when other elements of marginalization are at play. For example, a White teacher and a Black student have several innate power inequities (authority and race/ethnicity) that could lead to elements of "White saviorism" even in the best intentioned educators. This concept is defined in the work of Goldin et al. (2022), where they draw on the work of various scholars (Bonilla-Silva, 2013; Sondel et al., 2019; Cammarota, 2011; and Cole 2012) and state, "white saviors" tend to feel as if they are "saving" an individual or groups (often associated with deficit from the educators own lived experiences) while simultaneously failing to recognize systemic issues and structures that have led to the inequities.

When educators fall into this mentality it diminishes all value associations for the students (family, race/ethnicity, culture, religion) and makes assumptions that those values are weaknesses to overcome. Educators must actively choose to see strength in what a student values (socially and culturally) as opposed to weaknesses in exposure to trauma in order to foster healthy positive relationships in which students are viewed in a global and humanistic manner.

Conclusions

As educators we need to understand that we have significant influence over our students in the classroom (an environment we can control), however the frustration is that the influence we have diminishes in the systems that need change in order to create equity. To borrow a phrase from Venet (2021), “start where you are” (p. 17). For many of us this consists of internal reflection and classroom relationships. In order to best support students, those relationships need to be fostered so that educators have a better grasp of what systemic barriers students might be facing. According to Grabill et al, (2018), in order for trauma-informed practices to ascend and become a platform for social justice, it must indeed confront and respond to individual trauma as well as reflect on systemic practices. As educators we have a calling to work towards equitable practices in our classrooms. Acknowledging that students who are from marginalized backgrounds indeed face higher rates of exposure to adverse childhood experiences and are simultaneously experiencing trauma due to systemic forces means that we as educators truly have an obligation to consider these issues through the lens of social justice. Developing the “equity lens” (Venet, 2021) means that we question our practices, it means that we build positive relationships, it means that we reflect to see our own bias, all so that students have equitable opportunities. As we shift the mentality away from responding to trauma into preventing trauma

this lessens the burden on the impacted students and forces educators to consider how they can change their own practices and seek to create change at higher levels.

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