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A Preliminary Evaluation of the Trauma-Informed Child Advocacy Program at Mississippi State University

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A preliminary evaluation of the Trauma-Informed Child Advocacy program at Mississippi State
University

By

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A Thesis
Submitted to the Faculty of
Mississippi State University
in Partial Fulfillment of the Requirements
for the Degree of Master of Science
in Human Development and Family Science
in the College of Agriculture and Life Sciences

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This thesis evaluated the Trauma-Informed Child Advocacy Certificate (TICA) at Mississippi State University which is hosted in the School of Human Sciences, specifically in the area of Human Development and Family Science (HDFS). HDFS students ($N = 94$) enrolled in coursework during Spring 2021 participated in the evaluation. Students were grouped by enrollment in TICA courses, with 43 students having participated in TICA coursework and 51 students having only participated in general HDFS courses. Assessments included a perceived knowledge survey and 10 application-based scenarios. Independent samples T-tests indicated TICA students perceived themselves to have more trauma-informed knowledge, and frequency analyses showed they were more effective at applying that knowledge than HDFS students who have not taken any TICA courses. Data were used to highlight strengths of the TICA program and make recommendations on ways to enhance the TICA coursework to promote knowledge of trauma-informed professional practices.

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CHAPTER I

INTRODUCTION

Adverse childhood experiences (ACEs), such as childhood maltreatment and abuse, are a recognized public health concern. According to the National Children’s Alliance (2019), nearly 700,000 American children are abused each year with more than 3.5 million children involved in child protective service agencies yearly. The Centers for Disease Control reports one in seven children experience some sort of maltreatment (CDC, 2021) and the numbers are expected to increase given the pandemic (Brown et al., 2020). To meet the needs of the children and families, it is of utmost importance that preservice professionals who intend to work with children and families, particularly those in crisis, are well prepared for the challenges that they may face in the workforce. That is, preservice students need to not only be well prepared with knowledge of individual and family development, but they should also have the skills to recognize trauma symptoms and respond to the impact of traumatic stress on those who have contact with the system including the service providers themselves.

Child Advocacy Studies Training (CAST) was developed as a response to the dearth of training on child abuse and neglect in higher education (Vieth et al., 2019). CAST courses, as well as certificate and minor programs for undergraduate and graduate students alike, have been implemented in colleges and universities throughout the United States. In 2014, Mississippi became the first to create a statewide program to implement CAST in its colleges and

universities. In 2018, the state provided further training for higher education professionals in Project FORECAST, a program that uses problem-based learning simulations (PBL-S) focused on child protection to enhance the professional development offered in higher education programming. Project FORECAST was developed to further educate professionals of all types (e.g., police officers, schoolteachers, lawyers) on child maltreatment. Project FORECAST uses PBL-S to teach real-world scenarios to recognize child abuse in various settings and to learn the professional roles involved in responding to maltreatment. The trainees use their knowledge and group discussions to make decisions about the situation, therefore controlling the outcome of the simulation.

The statewide strategic plan was developed in response to an ongoing concern of high rates of children and families in the child protective system and the high turnover rates of professionals working in those systems. That is, the state of Mississippi is facing a crisis in regard to retention of frontline family and child well-being professionals. In 2019, Child Protective Services in Mississippi reported a 26% turnover rate for its employees (PEER Mississippi, 2019). They attribute the high turnover rate of employees in part to workers being unprepared to cope with the trauma and complex nature of the problems that children and families face. The goal of implementing the CAST and FORECAST initiatives was to stabilize the professional child and family workforce so that the system was better prepared to protect Mississippi's children.

Adverse Childhood Experiences

Vincent Felitti, a department head at Kaiser Permanente, partnered with Robert Anda from the Center for Disease Control to conduct the Adverse Childhood Experiences (ACEs) study. In this study, patients being seen at Kaiser Permanente Health Appraisal Clinic for basic

examinations were sent questionnaires after their visits that asked if they had experienced ten potentially traumatic childhood experiences, such as abuse and neglect, and parental divorce, parental incarceration, and parental substance abuse. Each questionnaire was comprised of questions starting with “While you were growing up during your first 18 years of life...” and asked about psychological, physical, and sexual abuse, substance abuse, mental illness, domestic violence, and criminal behavior within the household (Felitti et al., 1998). The questionnaires were sent out between August and November of 1995, and January to March of 1996. The initial questionnaire was sent to 13,494 patients and had 9,508 responses. A second wave of questionnaires was sent between June and October of 1997 to approximately the same number of patients. Patients who responded in the first wave of questionnaires were older than nonrespondents and predominately white. Over 17,000 patients responded to both waves of the questionnaire, and the researchers found the ACEs were prevalent within the well-educated, middle class population sampled. The researchers found that over two-thirds of respondents had experienced at least one ACE in their childhood, and 6.2% experienced more than four (Felitti et al., 1998). Additionally, the researchers correlated the number of ACEs one experienced with a number of health conditions (e.g., heart disease; depression) and found a graded dose-response association between ACEs and negative physical and mental health and well-being outcomes (Felitti et al., 1998).

Since the initial ACEs study, there have been many duplicates where ACEs have been extended to include more types of traumas. A study conducted by Cronholm and fellow researchers (2015) surveyed Philadelphia residents over the age of 18 on their ACEs as a follow up to the Southeastern Pennsylvania Household Health Survey (HHS). Residents in Philadelphia were contacted after the completion of HHS for interviews on their ACEs, and a total 1,784

responded. Their survey included the traditional ACEs, but also included discrimination, witnessing violence, living in an unsafe neighborhood, bullying, and living in foster care (Cronholm et al., 2015). The researchers refer to these as “expanded ACEs”. The results showed the expanded ACEs being just as prevalent as the traditional ACEs, with both being experienced by about half of the respondents.

In a similar study, Choi et al. (2020) compared three populations of parents from the Midwest on their prevalence of ACEs. One sample consisted of 1,087 parents whose children had been registered within the child protective services system, called the CPS Group; the second sample consisted of 659 single mothers whose children received a home visit program, called the HV Group; lastly, the third group was a sample of 667 general parents who participated in a previous wellbeing study with children up to the age of 14. Each participant completed the Childhood Experience Survey, a modified ACE questionnaire that includes three types of maltreatment, five types of household dysfunction, neglect, and factors such as financial issues, poverty, family illness or death, neighborhood violence, and bullying (Choi et al., 2020). The researchers found that the CPS group and HV group had higher prevalence of ACEs than the general group. Due to the findings, Choi et al. (2020) concluded that parents who have a higher ACE score are more likely to have children in the welfare system. Furthermore, the researchers determined that ACEs are not equally spread amongst different socioeconomic classes, meaning there is a higher rate of ACEs within impoverished communities compared to affluent communities.

While Vincent Felitti and Robert Anda started the ACEs movement, many researchers since have studied ACEs across the world. It can be concluded that ACEs are prevalent, and the lower on the socioeconomic scale an individual is, the more likely they are to being exposed to

ACEs. The high rates of exposure to potentially traumatic experiences during development coupled with the increased risk of negative health and well-being in adulthood highlights the need for professionals working with children and families to be well-versed in recognizing signs and symptoms of traumatic exposure, knowing how to respond to survivors of trauma, and providing support to these children and families using a trauma-informed lens. ACEs include a range of experiences, but each experience has a common denominator, stress.

Toxic Stress

When children are exposed to these adversities, they are faced with stress that can have negative effects, called toxic stress. Toxic stress “is the result of strong, frequent, or prolonged activation of the body’s stress response systems in the absence of the buffering protection of a supportive, adult relationship” in response to adversity (Shonkoff et al., 2012, p. e236). When the “fight or flight” response is enacted, the body’s heart rate and blood pressure increase, and the nervous system has a surge of neuro-endocrine-immune responses (Franke, 2014). Normally, the body will return to its resting state after a stress response, but when an individual experiences adversity repetitively, their body stays in this stressful state constantly.

During early childhood, the developing brain is especially sensitive to the hormones that are introduced in stressful situations. These hormones disrupt the development of the amygdala, orbitofrontal cortex, and the hippocampus; and functions such as memory, learning capabilities, and emotions are affected (Shonkoff et al., 2012). When the brain is persistently altered during sensitive periods, the overall structure and functions are impacted, leading to the problems seen in individuals who have experienced ACEs, such as behavioral issues, aggressive behavior, delinquency, criminal behavior, and suicide (Pelletier & Knox, 2017); emotional distress, like

anxiety, depression, and posttraumatic stress disorder (Kuhn et al., 2019); and lower academic achievement, drug and alcohol abuse, and impaired immune function (Shonkoff et al., 2012).

With the help of a supportive adult, toxic stress can be tolerable. When a child is facing tolerable stress, an adverse event is still occurring, but there is a supportive adult providing a buffer against the adversity, allowing the child to cope while feeling safe. Many adults who experienced ACEs themselves fall into the intergenerational cycle of adversity (Shonkoff et al., 2012), causing their children to face the same adversities. However, if there is a supportive adult elsewhere in the child's life, like a teacher or social worker, to buffer against the adversity, then the stress is more likely to be tolerable. That is why it is critical that persons working in professions that come in contact with children and families, particularly young children who are more susceptible to the harmful effects of toxic stress, understand how stress impacts the body and behavior and how they can help to mitigate the effects.

Statement of Problem

ACEs are a public health concern that affect many individuals daily. ACEs can impact the way an individual develops, which can have lasting effects persisting into adulthood, such as depression, substance abuse, and suicide (Felitti et al., 1998). Because so many individuals are affected by ACEs, there is a need for prevention and intervention to promote resiliency.

However, persons involved in these efforts must be aware of not only the impact of stress on the brain and body, but also that their interactions and responses to the survivors can impact the traumatic response of their clients. That is, persons who have experienced trauma have a heightened vulnerability to stressful events that follow, so asking probing questions about the trauma repeatedly or making alterations to the caregiving system can retraumatize the client and prolong the recovery process.

Since the early 2000's, many national organizations, such as the Substance Abuse and Mental Health Services Administration (SAMHSA), have adapted ways to prevent retraumatization of trauma exposed children and families (Hanson & Lang, 2016). SAMHSA funded the National Child Traumatic Stress Network that focuses on training professionals across the employment spectrum in trauma-informed care (Hanson & Lang, 2016). This network is just one example of an organization adapting to meet the needs of this public health concern. These trauma-informed techniques teach professionals how to prevent retraumatization while also recognizing the complexity and potential ramifications of a traumatic experience.

ACEs and childhood trauma are seen in many professions, but they are most often seen in the social service field. These workers, such as Child Protective Service (CPS) workers, teachers, and nurses, witness childhood adversity every day. Providing these professionals training on the negative impacts of ACEs can help prevent children from suffering from the outcomes of adversity and toxic stress. Becoming trauma-informed will help professionals recognize and respond properly to trauma exposed children.

Background of Study

This study focused on the effectiveness of a trauma-informed care program within the university setting. The overarching goal of trauma-informed care is to provide professionals the knowledge of the negative effects of trauma and how to appropriately work with victims to prevent retraumatization (SAMHSA, 2014). For the purpose of this paper, trauma-informed care will be defined as

a strengths-based framework that is grounded in an understanding of and responsiveness to the impact of trauma, that emphasizes physical, psychological, and emotional safety

for both providers and survivors, and that creates opportunities for survivors to rebuild a sense of control and empowerment. (Hopper et al., 2010, p. 82)

The Trauma-Informed Child Advocacy (TICA) program at Mississippi State University is a collaboration between the School of Human Sciences and the Psychology Department. The certificate requires students to complete 12 credit hours, with at least six of those coming from CAST-based courses. The 12 credit hour certificates includes: Trauma-Informed Practice, an introductory course developed by faculty in Human Development and Family Science that includes FORECAST problem-based learning simulations; Global Child Advocacy, a CAST-based course that focuses on cross-cultural perspectives; Perspectives on Child Maltreatment and Child Advocacy, a CAST-based course that includes FORECAST exercises in recognizing the signs and symptoms of child maltreatment; and at least one Human Development and Family Science or Psychology course that is either CAST-based or a major core course that embeds trauma-informed care practices.

Significance of Study

CAST has been implemented in colleges and universities across the state, yet the execution of CAST varies across sites. That is, the number of CAST-based courses offered at each institution, as well as the depth and breadth of the content, is inconsistent across sites and departments. Given the variability across sites, it is imperative to evaluate the efficacy of each CAST program separately. This thesis aims to do just that by evaluating the Trauma-Informed Child Advocacy Certificate at Mississippi State University.

Guiding Evaluation Objectives

The goal of this preliminary evaluation was to examine the strengths and weaknesses of the TICA program at MSU. To this end, one objective was to determine if students who had taken the trauma-informed coursework perceived themselves as more prepared to recognize and respond to different types of trauma than their Human Development and Family Science counterparts. A second objective was to assess students' abilities to apply trauma-informed care knowledge to real-world scenarios and determine if students who have taken TICA courses differ from their counterparts on success of this application. The third objective was to determine if students' perceived knowledge correlated with their actual knowledge and if these associations differed by group. Collectively, strengths and weaknesses of the program were identified. Do students who have taken TICA coursework report higher perceived knowledge of trauma-informed care principles and practices than the students enrolled in only HDFS courses? Do students who have taken TICA coursework apply trauma-informed care principles and practices (actual knowledge) at a higher rate than the students enrolled only in HDFS courses? Do perceived knowledge and actual knowledge of trauma-informed care principles and practices correlate for students who have taken TICA courses? What are the strengths and weaknesses of the TICA coursework?

Theoretical Framework

Urie Bronfenbrenner's Bioecological Model of Human Development (2005) describes how a child's environment and experiences define their development. This model recognizes the influences within a child's direct and indirect environment and the experiences a child witnesses throughout their early years, as well as the historical events of their lives and the timing of these experiences, on an individual's development. Through a system of five connected circles,

Bronfenbrenner explained how these contexts or events play a part in shaping a child as an individual. The theory begins with the direct environment, the microsystem, and ends with the timing of all experiences, the chronosystem. Three systems are in between, the mesosystem, exosystem, and macrosystem. Since Bronfenbrenner's death in 2005, many articles have been critiqued as inadequately modeling their research Bronfenbrenner's model (Tudge et al., 2009). However, this paper focuses on many aspects of the model (i.e. the interrelated circles and proximal processes) that guide trauma-informed systems and professions, not model the theory. Throughout the following paragraphs, each system will be connected to the example of a grieving mother and child coping after the father is killed in a car accident.

The innermost circle, the microsystem, includes the child's individual characteristics and immediate environment, such as family, school, or peers (Bronfenbrenner, 2005). These direct interactions combined with a person's own characteristics help guide development through face-to-face encounters and relationships. From a trauma-informed care perspective, it is important for professionals to recognize the impact of these interactions for children's development and to find ways to support children and families during or following a traumatic experience. For example, if a husband is tragically killed in a car accident, both the mother and the child will experience grief. If the mother is preoccupied with her grief and anxieties over adjusting to life without her partner, she may not have the capacity to care for and support her child in the same way she did prior to the accident. Without the mother providing the child with healthy coping skills and strategies to deal with the death of their father, the child's developmental trajectory can be altered. Bronfenbrenner refers to these interactions as proximal processes, or interactions that happen frequently. Without the mother frequently showing support and care for her child, the child's development is more likely to be negatively. Professionals working with this family need

to be aware that this change to the caregiving system and the developmental age and characteristics of the child will interact to predict the child outcomes overtime. Only when professionals recognize the influence that traumatic experiences can have on the caregiving system will they be better prepared to support children and families experiencing trauma.

The second circle, the mesosystem, is described as different microsystems colliding, creating links between two or more microsystems (Bronfenbrenner, 2005). This system can be seen through parent-teacher conferences, family functions at schools, or sleepovers with peers at the child's house. Continuing with the aforementioned example, the communication between the mother and the school, specifically the child's teacher, is key to providing the child with a supportive environment to assist them in overcoming the toxic stress that can stem from experiencing the loss of a parent. In the midst of the mother's grief, she may not recognize some of the regressive behaviors the child is exhibiting. If the teacher is aware of the developmental impact of trauma, they can recognize the behavior changes seen in the classroom as a symptom of the loss and work with the mother to develop a strategy to best support the child in both settings.

The exosystem, the third circle, contains events that take place in at least two settings, and at least one of these events do not directly impact the child (Bronfenbrenner, 2005). These events can include parental employment or school board policies and the influence those have on family life. For example, keeping with our previous scenario, the employer of the deceased father may or may not offer their employees' healthcare or life insurance options, both of which could impact the economic situation of the family. Additionally, a school system's philosophy and resources influence the mental health supports available to the child while they are at school. These interactions between systems can serve as protective or risk factors for a child's

development. Having trauma-informed organizations creates opportunities to reduce risks to families while also increasing protective factors that can buffer a child from the potential toxic stress associated with adversity.

The fourth circle, the macrosystem, encompasses the first three systems, with an emphasis on religion, beliefs, and culture (Bronfenbrenner, 2005). Further exploring the application of the theory in the context of the parental loss example, it is critical for professionals engaging with families who are experiencing adversity to recognize how worldviews and religious beliefs guide the grieving process. Some cultures engage children in the rituals of death and dying and are accepting of grief and expression of emotions, whereas others avoid conversations about death. Additionally, religion and spirituality play a key role in how people interpret death and the afterlife. Trauma-informed professionals know that culture is interwoven into all aspects of the crisis, from how one interprets the situation to how one responds and copes with adversity and uses this information to better serve and support families.

The fifth and last circle in the bioecological theory is the chronosystem. This system focuses on change over time, both within the child's personal characteristics and their environment (Bronfenbrenner, 1994). These changes can include a child's family relocating, a parent's employment status, or historical contexts, like war within the community. Losing a parent in a tragic accident is hard enough, but if that were to happen during the COVID-19 global pandemic then the increased stress of the time can accumulate, leading to a greater risk for poor outcomes for the child and family. For example, the family may not be able to participate in a traditional burial, the support from family and friends may be limited due to concerns of the virus, and some community supports such as grief support groups may not be available. The reduced protective factors could result in higher risks for additional traumas such as child abuse

or neglect. Trauma-informed individuals and organizations realize that children do not experience the trauma in a vacuum, and that intrinsic and extrinsic factors must be understood to respond to the trauma in a way that does not re-traumatize the children and families and promotes potential paths for recovery.

To be trauma-informed, it is crucial to understand how comprehensive adversities effect a child's development and the potential ways to mitigate those through prevention and intervention. Understanding the context of a child's environment and experiences is a critical component to being trauma-informed, and Bronfenbrenner's Bioecological Theory of Human Development (2005) provides a framework for professionals to use to guide their work with individuals and families experiencing adversity.

CHAPTER II

REVIEW OF LITERATURE

Trauma-Informed Care

While professionals in the child service field know how to recognize maltreatment, many of them do not have a complete grasp on how trauma effects children and how to prevent retraumatization (Kuhn et al., 2019). Social service professionals may inadvertently retraumatize the child or family, or inflict trauma on themselves (Kuhn et al., 2019; Sundborg, 2019). To prevent this, professionals need to become trauma-informed.

There are many different avenues that professionals can take to become trauma-informed. For example, there is an increasing number of trauma-focused trainings and educational resources available to assist professionals who work with children and families dealing with adversity. However, to prevent retraumatization of these vulnerable children and families, it is imperative to ensure that preservice individuals receive training in trauma-informed care prior to entering the workforce.

12-Core Concepts for Understanding Traumatic Stress Responses in Children and Families

The National Child Traumatic Stress Network, a collaborative network aimed at improving the lives of trauma-exposed children and families, Core Curriculum Task Force convened in 2007 to create a guide for professionals working with children and families

experiencing trauma. The guide, titled *The 12 Core Concepts for Understanding Traumatic Stress Responses in Children and Families* (NCTSN Core Curriculum on Childhood Trauma Task Force, 2012), represents a collaborative, interdisciplinary effort committed to raising the standard of care and increasing access to services through education and recognition of the most salient concepts associated with traumatic stress responses of children. These concepts are listed below with short descriptions of each.

Table 1 12 Core Concepts for Understanding Traumatic Stress Responses

1. Inherent complexity	traumatic experiences are complex with many different moments making up a single traumatic experience
2. Broad context	intrinsic and extrinsic factors influence a child's traumatic experience and recovery
3. Secondary stress	trauma often generates secondary adversities, life changes, and distressing reminders in daily life
4. Wide reaction range	children can exhibit a wide range of reactions after a traumatic experience that vary in their nature, onset, intensity, frequency, and duration
5. Safety concerns	feeling safe in both physical and psychological realms are core concerns in the lives of traumatized children
6. Care-giving systems	traumatic experiences affect the family and broader caregiving systems
7. Protective and promotive factors	protective and promotive factors can reduce the adverse impact of traumatic experiences
8. Developmental impact	traumatic events can strongly influence development and cause disruptions to the developmental process
9. Neurobiology	traumatic stress gets under the skin to alter how our brain and bodies work to keep us safe, protected, and ready for action
10. Interwoven culture	culture is closely interwoven into how a child experiences, responds to, and recovers from a traumatic experience
11. Challenged social contract	children's beliefs in and expectations of safety and protection from parents, teachers, and other community and social institutions can be challenged during and after a traumatic experience
12. Providers in distress	working with trauma-exposed children and families increases a professionals' secondary stress and thus requires professionals to practice self-care at both the individual and organizational level

Note: All descriptions are cited from NCTSN Core Curriculum on Childhood Trauma Task Force, 2012.

Trauma-Informed Care for Professionals

After establishing why there is such a need for trauma-informed approaches, below are some of the effective training and educational programs that have been developed. There is not a single pathway to become trauma-informed; there are numerous techniques that programs can follow (Sullivan et al., 2016; Sundborg 2019). However, the Substance Abuse and Mental Health Services Administration (SAMHSA, 2014) identified four key factors to ensure the safety and wellbeing of victims when creating and building trauma-informed care programs: realize, recognize, respond, and resist traumatization, or the Four R's. *Realize* refers to understanding the impacts of adversity on an individual. Realization can come in many forms, such as first-hand witnessing trauma, having traumatized coworkers, or hearing stories of trauma. Either way, having a basic realization about what trauma is and how it effects the individual is a precursor to recognizing trauma responses. *Recognize* refers to understanding the signs and symptoms of adversity in children and their families. While trauma does not discriminate based on demographic characteristics, the signs of trauma may be different depending on age, gender, and race. For example, a toddler may show regression in their recent developmental achievements in response to a trauma, whereas there may be a language delay experienced for an infant. *Respond* refers to understanding trauma-informed care and implementing the techniques to better assist the victim. An organization responds to trauma in all areas, meaning as soon as a victim steps into the organization, every individual that victim has contact with should know how to properly respond to the trauma exposed individual. Lastly, *resist retraumatization* refers to understanding how adversity impacts the body and mind, and how a professional can interact without retraumatizing the victim or themselves. By understanding a trauma-informed approach, the professional will understand a victim of physical abuse needs to be in a quiet room, or a victim

of sexual abuse does not need to be restrained, as these events may trigger the victim and lead to retraumatization (SAMHSA, 2014). The Four R's are key components to any trauma-informed program.

A recent study was conducted in Tennessee by Kuhn and colleagues (2019) on the effectiveness of CPS Academy, a trauma-informed training program that focused on the four R's. Participants were Department of Children Service (DCS) employees from across the state, including supervisors and field employees, who had worked in the field for at least one year prior to the program. Pre-tests were given at the beginning of the training to assess the employees' current knowledge on trauma-informed care and on the four R's. During the training, participants were required to attend multiple sessions that addressed: motivational interviewing, mental health, interventions, adolescent sexual behavior, counter responses, and child wellness. Sessions ranged from 1.5 to 4 hours, and multiple sessions were held for each topic. A post-test was given after the training to determine their effectiveness. The results showed significant increase in trauma-informed knowledge that involved evidence-based, best practices (Kuhn et al., 2019). Unfortunately, Kuhn and colleagues (2019) were unable to reach the participants over time and did not have access to how well they implemented the practices learned.

Similarly, a study surveying university graduates who attended an interdisciplinary training program that was a nine-month, two semester intensive training that included trauma-informed trainings, lectures, and practicums on child abuse and trauma-informed care techniques that help children and families was sent out after graduation (Yamaoka et al., 2019). This The students attend trainings in a variety of different ways, including “mock trials and case discussions” (Yamaoka et al., 2019, p. 4), as well as a practicum to be completed each semester and 30 hours of “community observations” (Yamaoka et al., 2019, p. 4). The researchers sent a

survey to 405 graduates and received 179 surveys for a 44.2% response rate. The surveys included questions about the student's discipline, how the training program relates to their current work, if the student had conducted any published research on child abuse, how the program effected their overall trauma knowledge, and if the program was important for the end career goal (Yamaoka et al., 2019). The career fields of the respondents varied greatly, with psychology having the highest response rate. The former students expressed satisfaction with the training program and indicated the importance of the program in their varied careers, both short-term and long-term.

Trauma-informed care trainings are shown to be effective in teaching techniques to prevent retraumatization to many different types of professionals. Through different modes, professionals were able to learn techniques and effectively apply these techniques in their work. However, teaching trauma-informed care to preservice students may reduce the risk of retraumatization, as students entering the professional setting will have the knowledge needed to successfully work with trauma-exposed individuals.

Trauma-Informed Care at Universities

While trauma-informed care trainings have been shown to be effective in professional settings, universities can implement curriculums and classes to proactively teach trauma-informed care before students become professionals. For example, a curriculum based on CAST was implemented in a medical school. The students were split into a control group and a program group, where the program group completed CAST courses and the control group did not. Directly following the completion of the program, the program group was much better prepared to work with trauma-exposed children and those results held at the 6-month follow up (Pelletier & Knox, 2017).

The National Child Traumatic Stress Network prioritizes public awareness of traumatic stress and how to practice trauma-informed care in the workplace (Pynoos et al., 2008). In 2007, the network created a curriculum to train graduate students on trauma-informed care. According to Layne et al. (2011), the curriculum, called Core Curriculum on Childhood Trauma (CCCT), developed core concepts that the students learned in preparation for their future work with trauma-exposed families. The twelve core concepts described previously provide evidence-based claims about trauma's impact on children, families, and professionals (Strand et al., 2011). The CCCT uses case-based modules and problem-based learning simulations (PBL-S) to teach the fundamentals of the core concepts. PBL-S provide "self-directed learning, learning through practice, case-based 'learning-in-context', and small group interaction, with the aim of promoting lifelong learning, increasing knowledge retention, and facilitating knowledge transfer to new cases and settings" (Layne et al., 2011, p. 245). PBL-S are widely used in the medical field and graduate level classes, as it emphasizes a collaborative way of learning. Students who have learned through PBL-S have shown longer knowledge retention and better problem-solving skills in the health services fields (Layne et al., 2011).

In the study conducted by Layne and colleagues (2011), the core concepts of the CCCT were taught using the PBL-S method to social work graduate students. The researchers stated that the students enjoyed the PBL-S, and that this method is effective in teaching the core concepts to students. The results from the study showed the students gained confidence in spotting core concepts throughout the simulation and applying them to different scenarios containing trauma-exposed children (Layne et al., 2011). In a similar study by Strand et al. (2011), the core concepts were discussed in graduate level social work classes at two different universities. The classes were set up differently at each university, where one was an intensive,

5-day course and the other was a traditional 15-week course. PBL-S were used throughout each course, but the number of readings and assignments varied based on the course length. However, after each course, the same questions were asked: (1) if the course helped the students' confidence level working with trauma-exposed children and families, and (2) if the PBL-S were well-perceived by the students (Strand et al., 2011). Based on the results, student participation was enhanced by using the PBL-S. Results also showed the intensive course was more beneficial than the traditional course in teaching the core concepts (Strand et al., 2011).

The CAST program has been implemented at many universities across the nation, in both undergraduate and graduate level classes. In 2005, Winona State University implemented the curriculum in a minor degree program without PBL-S (Osgood, 2016). The Winona State University faculty members who implement CAST strive to teach their students about child advocacy through an “interdisciplinary, experiential, evidence-based, and ethically and culturally sensitive” approach (Osgood, 2016, p. 262). The courses the university offered were Perspectives on Child Maltreatment and Child Advocacy, Professional and System Responses to Child Maltreatment, and Responding to the Survivor of Child Abuse and Survivor Responses (Osgood, 2016). To assess the strengths and weaknesses of the minor curriculum, a questionnaire was distributed to two different populations: current students in the CAST program and alumni who graduated during the first year the program was implemented. The results from the surveys were used to inform faculty on changes that needed to be made to the program. The alumni response rate was low, but despite the low response rate of 15.4%, the responses were positive. The alumni valued the different features offered in the program, such as the unique class structure. The alumni responses showed that many worked in a field where they used the topics covered in CAST and that it was beneficial to their employment. In terms of the current students' responses,

they were mostly positive. While many students said it was hard to schedule the classes due to semester-specific class slots, the students would delay their declaration of the minor to be able to complete all of the courses. A lesson learned from this was to schedule the courses strategically. Students also responded that the faculty lacked communication with the students, and a lesson learned through the responses was to have reoccurring faculty who are qualified teach the courses. Another lesson learned from the current students was to ensure the interdisciplinary characteristic is being taught, as many of the students plan on going into nursing, counseling, psychology, and juvenile justice (Osgood, 2016). Since Winona State University implemented this minor, there are now 73 colleges and universities from 20 states that have incorporated CAST courses into their curriculums.

In contrast to this university, Farrell and Walsh (2010) at the School of Early Childhood at Queensland University of Technology in Australia implemented a program that was very similar to CAST; however, the students went through a PBL-S. This PBL-S was implemented with half of the students online and the other half face-to-face. Both sets of students went through a PBL-S based on a child who was a suspected victim of physical abuse. The PBL-S was implemented over a 2-week time span and consisted of a total of 4 hours. Evaluation comparing the two delivery modalities found that the online students' responses were not as impactful as the face-to-face students who said the experience was beneficial and enlightening. The face-to-face students showed an increase of confidence in spotting the abuse, but many said it was more stressful, as it was hard to speak freely in fear of being misunderstood over a hard topic (Farrell & Walsh, 2010). However, the online students also feared being misunderstood, as they could not read each other and felt misinterpreted at some points, but ultimately both populations stated the PBL-S method was a beneficial way of learning (Farrell & Walsh, 2010).

CAST programs are developed at one university or college at a time, but Mississippi was the first state to initiate a statewide program. As of 2016, seven higher education programs offered CAST within Mississippi, with more being added yearly (Cross et al., 2020). Each program has the option to offer CAST as a certificate or a minor. An evaluation on the Mississippi CAST programs created by Cross and colleagues (2020) showed that CAST students had significantly more knowledge compared to their non-CAST counterparts at the end of each semester surveyed. However, not all of the programs within Mississippi are the same. Some implement PBL-S, while others implement the more traditional courses. Due to this variation, each program within Mississippi should be evaluated separately, and this thesis aims at creating a preliminary evaluation of Mississippi State University's Trauma-Informed Child Advocacy program.

CHAPTER III

METHODOLOGY

This study evaluated the strengths and weaknesses of the TICA Certificate coursework in promoting trauma-informed knowledge and care practices in preservice individuals. Two assessments were given to all students enrolled in Human Development and Family Science (HDFS) courses during Spring 2021. Independent T-tests were conducted to determine if TICA students perceived themselves to be more knowledgeable about critical components of trauma-informed care than the average HDFS student. Scenarios were used to assess students' application of trauma-informed care practices, and frequencies were conducted to determine if TICA students selected the trauma-informed best practice options at a higher rate than their HDFS counterparts. Pearson correlations were used to examine associations between perceived knowledge and applied/actual knowledge. This chapter includes an explanation of the research design, a detailed description of the population and sample, an outline of the variables and measurement, and the data collection procedures.

Research Design

This comparative research project used an evaluation to compare knowledge of trauma-informed care among students who have taken at least one TICA course and those who have not taken a TICA course (Non-TICA). The assessment included a self-rated knowledge section to

examine students' perception of their basic knowledge on trauma-informed care, and scenarios that detailed traumatic experiences to assess knowledge of trauma-informed practices

Recruitment and Population/Sample

The population for this study consisted of undergraduate students enrolled in Human Development and Family Science (HDFS) courses within the School of Human Sciences at Mississippi State University. The HDFS major is comprised of five concentrations: Child Development (e.g. Child Advocacy, Child Life, and Early Childhood), Youth Development, Family Science, and Family and Consumer Sciences Teacher Education (FCS). An email was sent to the class professors detailing the current evaluation and asked them to distribute the assessment to their class, with the suggestion of providing extra credit as an incentive to completing the assessment. A total of 10 professors agreed to offer extra credit for completion, except in two TICA courses where the evaluation was embedded in the final exam. The evaluation was available to all HDFS students from April 7th to April 26th, 2021.

Every HDFS class offered during the Spring 2021 semester had the opportunity to complete the evaluation, a total of 14 classes. A total of 525 undergraduate students were enrolled in HDFS courses in the Spring 2021 semester, and of these students, 144 were HDFS majors. A total of 138 students participated in the evaluation. Students had to be enrolled in at least one HDFS class during the Spring 2021 semester to be included and those who were in multiple HDFS classes were only included once.

The analytic sample included only HDFS students, resulting in a sample size of 94 (92 females; 2 males). The majority of the respondents (71.2%) were between the ages of 18-21 years, 25.5% were between the ages of 22 and 25, and less than 1% were older than 25 years. The majority of respondents were upper classmen (69.1%), 24.5% were sophomores, and 6.4%

were freshmen. The Child Development concentration made up 87.2% ($N = 82$) of the sample, with 7.4% ($N = 7$) in Youth Development, 3.2% ($N = 3$) focusing on Family Science, and 2.1% ($N = 2$) students in Family and Consumer Sciences Teacher Education. When asked whether the student was planning on obtaining the Trauma-Informed Child Advocacy Certificate, 63 students responded “Yes”, while 31 students responded “No”. These demographics are broken down between TICA and Non-TICA students in Table 2.

Table 2 TICA and Non-TICA Student Demographics

	TICA	Non-TICA
<u>Gender</u>		
Male	1	1
Female	42	50
<u>Age</u>		
18-21	34	33
22-25	9	15
>25	0	3
<u>Class</u>		
Freshmen	0	6
Sophomore	8	15
Junior	22	13
Senior	13	17
<u>Concentration</u>		
Child Development	38	44
Youth Development	3	4
Family Science	1	2
FCS	1	1
<u>TICA Certificate</u>		
Yes	36	27
No	7	24

Variables and Measurement

After consent was obtained, each participant was asked to document their Mississippi State University netID, gender, age, classification (e.g., senior), which, if any, TICA courses the participant has taken, and their current major and concentration, the latter only if the participant

was an HDFS major. Students not in the HDFS major were excluded from the analysis. The netID was needed for extra credit purposes and was not used in any part of the analysis.

Trauma-informed care knowledge was evaluated through student responses to crisis scenarios and perceived knowledge on components of trauma-informed care. The 23 self-reported statements were adapted from the report, “Program Evaluation of Mississippi’s CAST Initiative” (Cross et al., 2020) and the National Center on Family Homelessness Trauma-Informed Organizational Self-Assessment (Guarino et al., 2009). Each statement was scaled one to five, with one being strongly disagree and five being strongly agree. The statements are described in Table 3.

Table 3 Perceived Knowledge of Trauma-Informed Care Statements

Statement 1*	I know how to identify possible instances of child maltreatment.
Statement 2*	I know my role in responding to child maltreatment.
Statement 3	I know how to be an advocate for children.
Statement 4*	I know how to respond to survivors of child maltreatment.
Statement 5	I can explain the interpersonal dynamics of violence and abuse.
Statement 6	I understand the short-term impact of child maltreatment.
Statement 7*	I understand the long-term impact of child maltreatment.
Statement 8*	I understand factors that help maltreated children be resilient.
Statement 9	I understand the process of disclosure of child abuse.
Statement 10*	I understand the benefit of a multidisciplinary team response to child maltreatment.
Statement 11	I understand what kind of evidence can corroborate a true disclosure of child maltreatment.
Statement 12*	I know what toxic stress is and how it differs from positive stress.
Statement 13	I understand the basics of how traumatic stress affects the brain and body.
Statement 14	I understand there is a link between trauma and mental health.
Statement 15	I understand the connection between trauma and substance use.
Statement 16*	I understand that trauma affects developmental trajectories.
Statement 17	I understand that a secure attachment with a caregiver can protect children from toxic stress.
Statement 18	I understand that childhood trauma is a risk factor for adult re-victimization (e.g., domestic violence; sexual assault).
Statement 19*	I understand the role culture plays in interpreting, responding to, and recovering from trauma (e.g. different cultural practices, beliefs, rituals).
Statement 20*	I understand that providers may become distressed working with trauma survivors.
Statement 21	I know how to teach clients to use healthy coping strategies to manage their intense feelings (e.g., helplessness, rage, sadness, terror).
Statement 22	I know what a minimal facts interview is.
Statement 23	I know how to establish and maintain healthy professional boundaries.

Note: Statements with * represent those with a corresponding scenario

An expert in child development and trauma devised the 10 multiple choice scenarios that focused on 10 domains included in the perceived knowledge statements that are essential to understanding trauma-informed care. Each scenario had four answer choices, with the best trauma-informed practice choice being the correct answer. The answers were coded as 1 being correct, while the incorrect choices were coded as 0.

Analyses Plan

SPSS version 27 was used to perform descriptive analyses on each of the perceived knowledge statements and the ten application scenarios. Descriptive analyses were then conducted on the whole sample as well as by student type (i.e., TICA and Non-TICA students). Comparative analyses were conducted to determine if TICA students' perceived knowledge and actual knowledge of trauma-informed care practices statistically differed from their HDFS counterparts. Correlational analyses were conducted to examine associations between students' perceived knowledge and their application of knowledge.

CHAPTER IV

RESULTS

Preliminary Analyses

After collecting all assessments, each assessment was exported to SPSS Statistics for analysis. Data were examined to determine if outliers, duplications, or incomplete assessments were submitted. Outliers were then determined through careful observations of the perceived knowledge statements and scenarios. To be considered an outlier, students would have answered outside of the 1-5 scale for self-rated knowledge statements or outside of the A-D answer choices for the scenario section. No outliers were found in these observations. Duplicate assessments were determined by the netIDs provided, and each duplicate was evaluated. The assessment that had the most completion was kept for analysis, while the other assessments were deleted. One assessment was deleted from the analysis due to the student not being enrolled in HDFFS classes. For the final analysis, the sample consisted of 94 respondents.

Perceived Knowledge Statements

A descriptive analysis was conducted on the perceived knowledge statements by student type (i.e., TICA HDFFS and Non-TICA). The analysis included 43 TICA students and 51 Non-TICA students. Table 4 shows the means, standard deviations, and ranges of responses on the self-rated statements and these data are presented by student type.

To examine if there was a significant difference in the means of students' self-rated knowledge on trauma-informed care by student type, an independent sample t-test was conducted. Results indicate that there was a statistically significant difference between the two groups on 17 of the 23 statements. These results are presented in Table 4.

Table 4 Self-Rated Knowledge Means and T-test Comparisons by Student Type

Self-Rated Statement	TICA			Non-TICA			<i>t</i>
	<i>M</i>	<i>SD</i>	Range	<i>M</i>	<i>SD</i>	Range	
Statement 1: Child Maltreatment	4.44	.502	4-5	3.80	.895	1-5	<i>t</i> (92) = .343***
Statement 2: Role in Responding to Maltreatment	4.65	.529	3-5	3.65	1.016	1-5	<i>t</i> (92) = .137***
Statement 3: Advocacy	4.43	.703	2-5	4.02	.836	2-5	<i>t</i> (91) = 2.531*
Statement 4: Respond to Survivors of Child Maltreatment	3.79	.861	2-5	3.61	.827	2-5	<i>t</i> (92) = 1.045
Statement 5: Dynamics of Violence & Abuse	3.81	.906	2-5	3.18	.932	2-5	<i>t</i> (92) = .354***
Statement 6: Short-term Impact	4.50	.63	3-5	3.88	.864	2-5	<i>t</i> (91) = .970***
Statement 7: Long-term Impact	4.63	.489	4-5	4.02	.820	2-5	<i>t</i> (91) = .407***
Statement 8: Factors of Resilience	4.44	.548	3-5	3.84	.967	1-5	<i>t</i> (92) = .763***
Statement 9: Disclosure Process	4.16	.843	2-5	3.67	1.089	2-5	<i>t</i> (92) = 2.487*
Statement 10: MDT	4.51	.592	3-5	3.68	.999	2-5	<i>t</i> (91) = .960***
Statement 11: Disclosure Evidence	4.07	.799	2-5	3.37	.958	2-5	<i>t</i> (92) = .847***
Statement 12: Types of Stress	4.63	.536	3-5	4.35	.770	2-5	<i>t</i> (92) = 2.033*
Statement 13: Trauma, Brain, Body	4.49	.592	3-5	4.34	.626	2-5	<i>t</i> (91) = 1.173
Statement 14: Trauma-Mental Health	4.69	.468	4-5	4.55	.610	2-5	<i>t</i> (91) = 1.264
Statement 15: Trauma-Substance Use	4.65	.482	4-5	4.28	.730	2-5	<i>t</i> (91) = 2.929**
Statement 16: Trauma-Development	4.63	.536	3-5	4.27	.723	2-5	<i>t</i> (92) = 2.716**
Statement 17: Secure Attachment	4.70	.513	3-5	4.55	.610	3-5	<i>t</i> (92) = 1.283
Statement 18: Risk Factors	4.63	.489	4-5	4.41	.726	2-5	<i>t</i> (92) = 1.714
Statement 19: Culture	4.47	.631	3-5	4.32	.683	2-5	<i>t</i> (91) = 1.064
Statement 20: Providers in Distress	4.74	.441	4-5	4.12	.791	2-5	<i>t</i> (92) = .833***
Statement 21: Healthy Coping Strategies	4.05	.925	2-5	3.65	.996	1-5	<i>t</i> (92) = 2.014*
Statement 22: Minimal Facts	3.95	1.068	1-5	2.59	1.134	1-5	<i>t</i> (92) = .001***
Statement 23: Healthy Professional Boundaries	4.40	.660	3-5	4.18	.654	2-5	<i>t</i> (92) = 1.608

Note: *M* = Mean. *SD* = Standard Deviation. *t* = T-test value.

* $p < .05$; ** $p < .01$; *** $p < .001$.

Actual Knowledge Assessment

The second portion of the evaluation included 10 scenarios, each with four potential answers with one choice representing the best practice in trauma-informed care. Scenarios related to a topic involving either childhood trauma, advocacy, or trauma-informed practice. Below each scenario and its' best practice response is presented, followed by the frequency of correct answers among TICA and Non-TICA students. Table 5 shows the comparison of percent correct between the two groups. Along with the correct answers, bivariate correlations were conducted to determine if there were correlations between the students' scenario answers and their self-rated knowledge.

Scenario 1. *You are a developmentalist working at a non-profit that focuses on providing supports and education to underprivileged families. As one of the programs, you provide childcare for parents while they participate in adult education. DeMarcus is a nine-month-old baby of a new client. His mother was there to participate in the GED preparation course, and you don't know much about their situation other than that. While you are with DeMarcus you notice some significant developmental delays. Namely, he is unable to focus or track with his eyes and he is unsure when you are speaking to him. Which of these statements best represents the first step of your role in this situation?*

The best practice choice for this scenario states, "Talk with the mother to learn more about their situation and decide from that conversation if you suspect this is a situation of neglect or if there may be more going on such as lack of awareness or resources." Within the TICA students' group, the majority of students ($n = 31$; 72.1%) answered the scenario correctly. Likewise, the majority of Non-TICA students ($n = 42$; 82.4%) selected the best practice.

Scenario 2. *Molly, 21, experienced sex trafficking at the age of 19 and has a prostitution charge on her record. She is working with an attorney to get the charge expunged so she can apply for jobs. Molly disclosed her story to the attorney and used the word, "boyfriend", to describe her trafficker. How should the attorney respond?*

For this scenario, the best practice answer states, "Tell me about your experience with your boyfriend." Within the TICA students' group, all but two students selected the correct

answer choice ($n = 41$; 95.3%). Similarly, the majority of Non-TICA students selected the best answer choice ($n = 45$; 88.2%).

Scenario 3. *Karen has been working with CPS for 6 months. During that time, she has been a part of 10 investigations of sexual abuse. Karen has started to show signs of distress herself such as loss of sleep and heightened anxiety. Karen knew that the job would be taxing, but she didn't realize how much it could impact her personally.*

The best practice answer for this scenario states, “Karen needs to work on ensuring that she practices self-care, as she is experiencing secondary stress from her job that can be problematic for Karen’s health and wellbeing.” Within the TICA students’ group, all but one student selected the correct answer ($n = 42$; 97.7%). Within the Non-TICA students, the majority answered correctly ($n = 46$; 90.2%).

Scenario 4. *Kelly was born into a chaotic family life in which she did not receive the safety and love needed for optimal development. Her parents were young when Kelly was born, and both had mental health and addiction issues. When Kelly started school, her vocabulary was small, and she had a hard time paying attention. She was bullied because of her worn out clothes and her body smell, so as she got older, she grew to hate school. School caused her a lot of anxiety, so she decided to drop out at 16. It was hard to find a job and she ended up becoming a child on the street, doing what she could to survive. Kelly ended up pregnant and homeless at 18.*

The best answer for this scenario states, “This scenario is an example of how early adversity increases risk over time for poor outcomes”. Within the TICA students’ group, the majority of students ($n = 40$; 93.0%) answered the scenario correctly. Similarly, the over half of Non-TICA students ($n = 35$; 68.6%) selected the best practice option.

Scenario 5. *Children who have experienced trauma historically had to recite their experience numerous times. For example, if a child disclosed sexual abuse to a teacher, they would have to answer questions for the teacher, the administrator of the school, the social worker, the police, and then potentially in court. Each time the child is asked to reflect on the experience(s), they are retraumatized. Child advocates have worked to get this process revamped. What statement below best describes the process of disclosure and investigation of these type of investigations now?*

The correct answer for this scenario states, “After a minimal facts interview is conducted by a teacher at the school and the abuse is suspected, the school will notify Child Protective Services. Child Protective Services then set up a visit for the child at a Child Advocacy Center in which a forensic interviewer conducts an interview with the child. While the interview takes place, other professionals such as lawyers, doctors, and/or police are watching behind two-way mirrors and ask their questions through the forensic interviewer.” Within the TICA students’ group, the majority of students ($n = 38$; 88.4%) answered the scenario correctly, however, only a little over half of Non-TICA students answered correctly ($n = 32$; 62.7%).

Scenario 6. *Zach was 10 years old and living in New Orleans when Hurricane Katrina hit. His family lost everything they owned, including his pet, Bo. Zach witnessed people dying, experienced food insecurity, and lived-in impoverished conditions for months, highlighting the inherent complexity of the natural disaster. Zach’s mother takes medication for anxiety and there was a long period of time that she was not able get any medicines, so while she is a caring single mother, her capacity to support Zach was limited. The stress left Zach with problems concentrating, sleep loss, and high anxiety. Sarah, age 10, also lived in New Orleans at the time of Katrina and while she also experienced the trauma of a natural disaster, her family was safe, and their home was only moderately damaged. Sarah’s parents had previously purchased a generator, so they only lost power for a short time and were able to keep their food supply intact until they were able to leave the area. Sarah’s family had access to another home outside the natural disaster zone to live in while their home was fixed. Sarah experienced anxiety during and immediately following the experience, but she had the support of her family and was able to participate in therapy which helped her overcome the acute anxiety. Which of the following statements fits this scenario best?*

The best practice answer to this scenario is, “Zach and Sarah both experienced potential toxic stress, but Sarah had promotive factors in the environment that helped the toxic stress be tolerable.” Within the TICA students’ group, the majority of students ($n = 31$; 72.1%) of students answered the scenario correctly. However, less than half of the Non-TICA students answered the scenario correctly ($n = 23$; 45.1%).

Scenario 7. *You are an early childhood educator teaching one-year-olds. Through assessment and observation, you realize that the child is not progressing at a typical pace in multiple*

domains of development. You learn that the child was born premature and had a very low birth rate. You start to work with the child in the classroom to enhance his development and you suggest strategies for the parents to use at home. You also discuss with the parents the value of early intervention and encourage them to enroll the child. Which of the following statements is the best to describe this scenario?

For this scenario, the best practice answer states “In this example, the teacher is engaged in mesosystem-level advocacy.” Within the TICA students’ group, just over half of the students ($n = 27$; 62.8%) answered the scenario correctly. However, less than half of the Non-TICA students answered correctly ($n = 18$; 35.3%).

Scenario 8. *Ferando was born in the US and has spent his 15 years of life here. While his parents came to the US legally, Ferando has several relatives who recently immigrated to the US illegally and they are staying at Ferando’s home. When Ferando had to be interviewed by the police due to a community violence incident that occurred in the park he was hanging out in, he “shut down” and would not answer the police officer’s questions. Based on the information above, which of the following statements best illustrates what might be the reason for Ferando’s response to the police.*

The best practice answer for this scenario states “Ferando is fearful to speak with police because he has recently read in the news about discrimination by police against people of color such as himself and he is concerned that speaking to the police may lead to his illegal family members being deported.” Within the TICA students’ group, the majority of students ($n = 33$; 76.7%) answered the scenario correctly. Slightly over half of Non-TICA students ($n = 35$; 68.6%) selected the best practice.

Scenario 9. *Ladonna is a senior in college in her last semester before graduation. She has put off one of the hardest classes until now and the final test could make or break her ability to successfully complete the semester. Ladonna prepared well for the test, but when she got into the room, she could feel her heart race. She was nervous, but after she started the test she started to relax as she was able to answer most of the questions. What type of stress was Ladonna experiencing?*

The best practice answer for this scenario is “Positive Stress”. Within the TICA students’ group, just over half of the students ($n = 29$; 67.4%) answered the scenario correctly. However, less than half of the Non-TICA students answered correctly ($n = 15$; 29.4%).

Scenario 10. *You have a student in your preschool class named Sammy. Sammy has showed significant growth across all domains of development from August to December. After the winter break, you noticed that Sammy wasn't acting like himself. He was having bathroom accidents, something he had not had prior to now. He was also withdrawing from his peers and not engaging as much with the activities. One day when you had to help him into clean clothes, you notice a mark on his leg. What statement below aligns with your training?*

The correct answer for this scenario states, “The change in Sammy’s behaviors indicates to you that you may need to find out more about what is happening to Sammy as you believe that there might be some maltreatment involved in his care.” Within the TICA students’ group, the majority of students ($n = 39$; 90.7%) answered the scenario correctly. Likewise, the majority of Non-TICA students ($n = 40$; 78.4%) selected the best answer choice.

Table 5 Percent of TICA and Non-TICA Students Who Selected the Correct Answer

	TICA	Non-TICA HDFS
Scenario 1: Roles	72.1%	82.4%
Scenario 2: Responding to Trauma	95.3%	88.2%
Scenario 3: Self-Care	97.7%	90.2%
Scenario 4: Cumulative Risk	93.0%	68.6%
Scenario 5: MDT	88.4%	62.7%
Scenario 6: Protective and Promotive	72.1%	45.1%
Scenario 7: Advocacy	62.8%	35.3%
Scenario 8: Culture	76.7%	68.6%
Scenario 9: Stress Types	67.4%	29.4%
Scenario 10: Signs and Symptoms	90.7%	78.4%

Comparisons between Perceived and Actual Knowledge

To determine if students’ perceived knowledge aligned with their actual knowledge Pearson correlations were conducted by student type. Multiple Point-biserial correlations, a subtype of Pearson correlations, were conducted because these allow for examination of relations between a dichotomous (i.e., correct versus incorrect answers on the scenarios) and continuous

variables (i.e., 5-point scale used to assess perceived knowledge). Results indicated one significant correlation for each student type. That is, for TICA students there was a significant positive correlation between students' rating of knowing their role in responding to child maltreatment and the Scenario 1 responses ($r_{pb} = .322, n = 43, p = .035$). Scenario 5 was negatively correlated with Statement 10 regarding the benefit of an MDT team in response to child maltreatment, which was statistically significant ($r_{pb} = -.347, n = 48, p = .016$) only for those who were Non-TICA students.

CHAPTER V

DISCUSSION

Childhood trauma and toxic stress have lasting impacts on individuals. Research shows that ACEs may lead to many negative adult outcomes, such as health problems, poverty, incarceration, or early death to name a few (Felitti et al., 1998). Trauma-informed professionals can help reverse the effects of trauma by knowing how to effectively help the victim without retraumatizing. Training in trauma-informed care can be conducted on the job, however, training preservice students during their educational career can mitigate potential harm during professional practice. To this end, university programs should be evaluated for effectiveness to ensure that trauma-informed care practices are being communicated. This evaluation was aimed at determining the effectiveness of Mississippi State University's Trauma-Informed Child Advocacy certificate program in providing students with the knowledge and skills needed to implement trauma-informed care.

Taken together, results from this pilot evaluation indicate that the Trauma-Informed Child Advocacy courses are effectively influencing student trauma-informed knowledge. That is, those students who have taken at least one TICA course perceive themselves to be more knowledgeable across all trauma-informed care statements assessed. Additionally, TICA students were able to apply trauma-informed care knowledge at a higher rate than their HDFS only counterparts.

Self-Perceived Knowledge Statements

While there were substantial differences in scores between TICA students and Non-TICA students on several perceived knowledge statements, there was variability in the differences. Both groups of students perceived themselves to be well-versed in the influence of trauma on an individual's brain, body, and mental health; the importance of secure attachment in protecting individuals against negative outcomes associated with adversity; as well as the role of culture in interpreting, responding to, and recovering from adversities. These findings are not surprising given that multiple HDFS core courses address these topics.

On the other hand, TICA students are exposed to topics that are not generally discussed in core HDFS courses. For example, TICA students engage in problem-based learning experiences that teach them their role in responding to potential child maltreatment, how to conduct a minimal facts interview, as well as how to participate in a multidisciplinary team. These trauma-specific responses were perceived to be understood better by TICA students than the Non-TICA students as indicated by a higher rating on the perceived knowledge scale.

Actual Knowledge Scenarios

Regarding students' ability to apply trauma-informed care practices, TICA students outperformed Non-TICA students on all but one scenario concerning a professionals' role in identifying and responding to maltreatment (Scenario 1). This finding may be caused by TICA students' hypersensitivity to identifying the signs and symptoms of child maltreatment learned through the TICA coursework. That is, it could be explained through a cognitive bias lens, particularly the Baader-Meinhof phenomenon or the "frequency illusion" (Kolli et al., 2019). This frequency illusion describes becoming familiar with new information, then the brain being more aware of it within the environment. For example, this illusion is most frequently seen when

an individual purchases a new car, then begins to see the same type of car more frequently. The illusion may also be seen in students who have no previous knowledge about how to recognize child maltreatment. The lack of experience with identifying and considering multiple indicators simultaneously rather than just looking at one sign alone may also play a role. For example, neglect may in some instances look very similar to what someone living in poverty may experience (e.g., lack of clean clothes) and a preservice student may not be well-versed enough to discern the difference between the two of these.

The scenario addressing the importance of self-care had the highest percentages of correct responses for both groups. The importance of self-care when working with vulnerable populations is highlighted in core HDFS classes, but this concept has also received attention on social media given the global pandemic. High correct responses rates were also found on the scenario addressing content on how to respond to survivors of child maltreatment. A similar rate of correct responses between TICA and Non-TICA students were found in regard to the role of culture in shaping trauma experiences. These similarities between groups may be due to multiple factors, one of which is that core HDFS coursework in recent years has put a stronger focus on these topics across all concentrations. Additionally, current social issues (e.g., highlights of racial inequity) are commonly discussed in the classroom and across social media platforms, potentially increasing students' awareness of culture but not always providing them with a trauma-lens in which to view that information.

TICA students surpassed Non-TICA students on applying knowledge in context on four content areas: understanding the different types of stress, child advocacy, protective and promotive factors, as well as knowledge of multidisciplinary teams. While stress types, advocacy, and multidisciplinary teams are central to discussion in TICA courses, there is limited

exposure in the core HDFS curriculum. On the other hand, it is surprising that fewer students correctly identified protective and promotive factors as these are a critical component included in the Risk and Resilience course that all HDFS concentrations take.

Connections Between Perceived and Applied Knowledge

The alignment of students' perceptions of their knowledge with their ability to apply knowledge within specific content areas was of interest. As often noted in the literature (Kruger & Dunning, 1999), students' perceptions of their knowledge do not always align well with their ability to apply the information in context. Generally, the results support this idea with a couple of exceptions. TICA students perceived themselves as knowing what they should do in response to instances of disclosure or recognition of child maltreatment and the majority of them were able to select the best practice in trauma-informed care for the corresponding scenario. The ability to know one's role as a professional and respond to child maltreatment in a trauma-informed way is a key component of the TICA curriculum. Non-TICA students perceived their knowledge to be limited regarding multidisciplinary teams. Surprisingly, the majority of Non-TICA students selected the best practice answer on the related scenario. This negative correlation may be the result of students using the common test-taking strategy of selecting the answer choice "C" or selecting the longest answer choice when a student does not know the answer. For this scenario, the answer choice happened to be "C" and the longest option.

Limitations

While the evaluation was successful at finding strengths and weaknesses within the TICA program, limitations must be noted. While the perceived knowledge statements were adapted from the report "Program Evaluation of Mississippi's CAST Initiative" (Cross et al., 2020) and

the National Center on Family Homelessness Trauma-Informed Organizational Self-Assessment (Guarino et al., 2009), these are not validated measures and self-ratings of knowledge can be inaccurate. Creating a validated measure for similar programs to use will be essential moving forward. The scenarios were presented in a standard order that could have potentially influenced the results. Future evaluations should consider randomizing the order of scenarios, as well as the presentation of answer choices. The language used within the scenario needs to be assessed, as younger students may not have the capacity to understand certain higher education terminology compared to their upperclassmen counterparts. In the future, terminology that all students will understand should be used throughout the scenarios. The TICA certificate is available to any student at Mississippi State University, but for this sample, HDFS only students were used. Lastly, the assessment took place over one semester. In the future, including more diverse majors and a longer assessment period will give a better understanding of how effective the TICA curriculum is at teaching the trauma-related concepts.

Lessons Learned

This evaluation provides insight on the strengths and weakness within the TICA certificate program. Application data suggests the coursework is providing foundational knowledge of how to: (1) respond to survivors of child maltreatment, (2) practice self-care, (3) conceptualize cumulative risk, and (4) recognize signs and symptoms of child maltreatment. Findings also suggest a greater emphasis is needed within the TICA curriculum on topics pertaining to: (1) knowing your role as a professional working with trauma-exposed victims, (2) protective and promotive factors, (3) child advocacy, (4) the role culture plays in trauma related experiences, and (5) the types of stress. While students indicated that they understood their role in identifying and responding to child maltreatment, TICA students performed lower on the

application of this content than their counterparts, underscoring a need for more opportunities within the curriculum for students to practice these skills. Ensuring that protective and promotive factors are defined, real-life examples are discussed, and opportunities for application are included within all the TICA courses is recommended based on the results. Child advocacy was the area that TICA students performed the worst in and given that it is only addressed in two of the three mandated components of TICA, it is clear that this topic needs more attention. Given child advocacy is included within the title of the certificate, greater care should be given to the discussion and promotion of child advocacy within the context of all TICA courses. Using a trauma-informed lens to understand cultural variations in identifying, responding to, and recovering from adversity needs to be strengthened in the TICA curriculum. Of note, the Global Child Advocacy course that is required for the certificate addresses these cultural issues, but the data suggest that incorporating a trauma-focused cultural lens is needed in more of the TICA courses to make sure that students are not only exposed to but also able to apply this approach. Another suggestion to enhance the effectiveness of TICA is to highlight the positive role of stress, as many students were not able to recognize the difference between positive and tolerable stress in the scenarios. It is critical to understand that not all stress is bad, not only for understanding the impact of trauma but also for healthy development in general. Strengthening these components will better equip students to enter professional fields where trauma-informed care is needed.

Three perceived knowledge statements that TICA students reported being least confident in were responding to survivors of child maltreatment, the dynamics of violence and abuse, and knowledge of minimal facts interviewing. Students reported to be less confident in their knowledge about minimal facts interviewing in comparison to the other perceived knowledge

statements. The CAST course that covers minimal facts in-depth (i.e., Professional and System Responses to Child Maltreatment) has not been taught as part of the TICA certificate the last two years and these data suggest that this coursework needs to be re-established. Another area students had less confidence in pertained to understanding the interpersonal dynamics of violence and abuse. While topics around violence and abuse are prominent in the TICA courses, students may not truly understand the perpetrator and victim relationship. Finding ways to discuss this power dynamic and how the dynamic influences the survivor's response (e.g., willingness to admit abuse is happening; willingness to go to a domestic violence shelter) needs to be emphasized and new approaches in delivering this information may be needed. Lastly, students reported less confidence in their ability to respond to survivors after a trauma has occurred. While TICA students perceived themselves are well prepared to deal with trauma in the moment, supporting and interacting with trauma survivors was not perceived as an area of competency. Embedding Trust-based Relational Intervention (i.e., TBRI; an attachment-based trauma-informed intervention that is designed to meet the complex needs of vulnerable children) techniques at a greater rate within the TICA courses may increase students' competency regarding how to respond to children and families who have been trauma exposed and may have dysregulation issues. Providing students with more application of these TBRI techniques should improve both their knowledge and ability to meet the survivors where they are using best practices.

Overall, results have provided the TICA program with valuable information that can be used to guide programs in the future, both at Mississippi State and other universities. While data shows promising qualities of the TICA program, it also shows areas where improvements can be

made. Placing an emphasis on these areas in future courses will likely lead to higher confidence within the perceived knowledge area, as well as improved practice.

Future Directions

While this preliminary evaluation showed promise within the TICA program at Mississippi State, future evaluations will need to be changed for better results. To determine if trauma-informed care is dose dependent, larger sample sizes and longitudinal data will be needed. The question of whether the more TICA courses taken lead to more trauma-informed knowledge will be answered by including a larger, longitudinal data size. Graduates of the program who are working in the field will also need to be assessed to see how they are applying the knowledge learned through the program, as this will determine the efficacy of the TICA program as well.

Summary and Implications

Overall, this preliminary evaluation shows promise of the Trauma-Informed Child Advocacy program at Mississippi State University. Data shows promising qualities of the TICA program, it also shows areas where improvements can be made. Placing an emphasis on these areas in future courses will lead to higher confidence within the perceived knowledge area, as well as a higher selection rate of best practice answers within the applied knowledge area. The findings from this evaluation build on the limited amount of evaluation data available for university implemented programs based on trauma-informed care. Studies like these are critical to facilitate a paradigm shift to applying a trauma focused lens in social service sectors. To this end, effective trauma-informed care trainings, particularly at the preservice level, can begin the shift across all ecological levels.

The TICA program and its associated evaluation is a step in the direction to facilitate change across all five circles of Urie Bronfenbrenner’s Bioecological Model of Human Development (2005). If programs such as TICA are more readily available to preservice individuals and the programs have been evaluated for effectiveness, there is the potential for not only reductions in trauma experiences, but also more effective interventions with vulnerable populations. For example, family scientists who are trauma-informed can work with families to better prevent cycles of violence, while trauma-informed educators can use teaching strategies that are more effective for individuals who have been impacted by trauma. Communities will ultimately become better equipped to meet the needs of their populations as organizations and support groups will apply a more trauma-informed lens to working with individuals and families. Ultimately, programs such as these can lead to policy changes that mitigate adversity and promote healing from trauma.

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APPENDIX A
DEMOGRAPHIC SCENARIO QUESTIONS

Demographics

1. Gender _____
2. Age (in years) _____
3. Classification
 - a. Freshman
 - b. Sophomore
 - c. Junior
 - d. Senior
4. Which of the following TICA courses have you taken?
 - a. HDFS 2023 Trauma-informed Practice
 - b. HDFS 2123 Perspectives on Child Maltreatment and Child Advocacy
 - c. HDFS 3123 Global Child Advocacy Issues
 - d. PSY Special Topic: Professional and System Responses to Child Maltreatment
5. Are you a Human Development and Family Science major?
 - a. If yes, what is your concentration?
 - b. If not, what is your major?

APPENDIX B
SELF-PERCEIVED KNOWLEDGE STATEMENTS

1. I know how to identify possible instances of child maltreatment.
2. I know my role in responding to child maltreatment.
3. I know how to be an advocate for children.
4. I know how to respond to survivors of child maltreatment.
5. I understand the interpersonal dynamics of violence and abuse.
6. I understand the short-term impact of child maltreatment.
7. I understand the long-term impact of child maltreatment.
8. I understand factors that help maltreated children be resilient.
9. I understand the process of disclosure of child abuse.
10. I understand the benefit of a multidisciplinary team response to child maltreatment.
11. I understand what kind of evidence can corroborate a disclosure of child maltreatment.
12. I know what toxic stress is and how it differs from positive stress.
13. I understand the basics of how traumatic stress affects the brain and body.
14. I understand there is a link between trauma and mental health.
15. I understand the connection between trauma and substance use.
16. I understand that trauma affects developmental trajectories.
17. I understand that a secure attachment with a caregiver can protect children from toxic stress.
18. I understand that childhood trauma is a risk factor for adult re-victimization (e.g., domestic violence, sexual assault).
19. I understand the role culture plays in interpreting, responding to, and recovering from trauma (e.g., different cultural practices, beliefs, rituals).
20. I understand that providers may become distressed working with trauma survivors.
21. I know how to teach clients to use healthy coping strategies to manage their intense feelings (e.g., helplessness, rage, sadness, terror).
22. I know what a minimal facts interview is.
23. I know how to establish and maintain healthy professional boundaries.

APPENDIX C
APPLIED KNOWLEDGE SCENARIOS

1. You are a developmentalist working at a non-profit that focuses on providing supports and education to underprivileged families. As one of the programs, you provide child care for parents while they participate in adult education. DeMarcus is a nine-month-old baby of a new client. His mother was there to participate in the GED preparation course, and you don't know much about their situation other than that. While you are with DeMarcus you notice some significant developmental delays. Namely, he is unable to focus or track with his eyes and he is unsure when you are speaking to him. Which of these statements best represents the first step of your role in this situation?
- Call Child Protective Services without talking with the mothers, as you suspect there is child abuse and neglect happening.
 - Talk with the mother to learn more about their situation and decide from that conversation if you suspect this is a situation of neglect or if there may be more going on such as lack of awareness or resources.
 - Call the early interventionist for your area and get the child enrolled.
 - Discuss with the mother ways that she can work with her infant to enhance eye coordination.
2. Molly, 21, experienced sex trafficking at the age of 19 and has a prostitution charge on her record. She is working with an attorney to get the charge expunged so she can apply for jobs. Molly disclosed her story to the attorney and used the word, "boyfriend", to describe her trafficker. How should the attorney respond?
- "If he was your boyfriend and cared for you, he would not exploit you."
 - "When you say boyfriend, you mean trafficker?"
 - "Sounds like he is not someone to be in a relationship with."
 - "Tell me about your experience with your boyfriend."
3. Karen has been working with CPS for 6 months. During that time, she has been a part of 10 investigations of sexual abuse. Karen has started to show signs of distress herself such as loss of sleep and heightened anxiety. Karen knew that the job would be taxing, but she didn't realize how much it could impact her personally.
- If Karen practiced trauma-informed care she would not be showing signs of burnout.
 - Karen's distress over the CPS cases suggest that Karen was not well prepared in school to deal with the nature of this work.
 - The caseload is too large for Karen and she needs to speak with her supervisor to request a reduced load.
 - Karen needs to work on ensuring that she practices self-care, as she is experiencing secondary stress from her job and that can be problematic for Karen's health and wellbeing.

4. Kelly was born into a chaotic family life in which she did not receive the safety and love needed for optimal development. Her parents were young when Kelly was born, and both had mental health and addiction issues. When Kelly started school, her vocabulary was small, and she had a hard time paying attention. She was bullied because of her worn out clothes and her body smell, so as she got older, she grew to hate school. School caused her a lot of anxiety, so she decided to drop out at 16. It was hard to find a job and she ended up becoming a child on the street, doing what she could to survive. Kelly ended up pregnant and homeless at 18.

- a. This scenario is an example of the cycle of violence.
- b. This scenario is an example of how early adversity increases risk over time for poor outcomes.
- c. This scenario is an example of allostatic load and its' impact on development.
- d. This scenario is an example of tolerable stress.

5. Children who have experienced trauma historically had to recite their experience numerous times. For example, if a child disclosed sexual abuse to a teacher, they would have to answer questions for the teacher, the administrator of the school, the social worker, the police, and then potentially in court. Each time the child is asked to reflect on the experience(s), they are retraumatized. Child advocates have worked to get this process revamped. What statement below best describes the process of disclosure and investigation of these type of investigations now?

- a. The teacher and administrator record the interview that they conduct with the child so that other professionals can use that information instead of conducting further interviews.
- b. The teacher and/or administrator, whomever has a closer relationship with the child, conduct a forensic interview with the child to share with the other professionals who become involved in the case.
- c. After a minimal facts interview is conducted by a teacher at the school and the abuse is suspected, the school will notify Child Protective Services. Child Protective Services then set up a visit for the child at a Child Advocacy Center in which a forensic interviewer conducts an interview with the child. While the interview takes place, other professionals such as lawyers, doctors, and/or police are watching behind two-way mirrors and ask their questions through the forensic interviewer.
- d. After a minimal facts interview is conducted by a teacher at the school and the abuse is suspected, the school will notify Child Protective Services. Child Protective Services then set up a visit for the child at a Child Advocacy Center in which all of the professionals who need access to the interview information are present and ask the child their questions together.

6. Zach was 10 years old and living in New Orleans when Hurricane Katrina hit. His family lost everything they owned, including his pet, Bo. Zach witnessed people dying, experienced food insecurity, and lived in impoverished conditions for months, highlighting the inherent complexity of the natural disaster. Zach's mother takes medication for anxiety and there was a long period of time that she was not able to get any medicines, so while she is a caring single mother, her capacity to support Zach was limited. The stress left Zach with problems concentrating, sleep loss, and high anxiety. Sarah, age 10, also lived in New Orleans at the time of Katrina and while she also experienced the trauma of a natural disaster, her family was safe, and their home was only moderately damaged. Sarah's parents had previously purchased a generator, so they only lost power for a short time and were able to keep their food supply intact until they were able to leave the area. Sarah's family had access to another home outside the natural disaster zone to live in while their home was fixed. Sarah experienced anxiety during and immediately following the experience, but she had the support of her family and was able to participate in therapy which helped her overcome the acute anxiety. Which of the following statements fits this scenario best?

- a. Zach and Sarah both experienced potential toxic stress, but Sarah had promotive factors in the environment that helped the toxic stress be tolerable.
- b. Zach and Sarah both experienced tolerable stress, but Sarah had protective factors in the environment that led her to experience toxic stress.
- c. Both children experienced toxic stress, but Zach had poorer outcomes because of the greater complexity of his experience.
- d. Zach and Sarah both experienced changes in their developmental trajectories as a result of Katrina, but the risk factors Sarah experienced led to more optimal outcomes.

7. You are an early childhood educator teaching one-year-olds. Through assessment and observation, you realize that the child is not progressing at a typical pace in multiple domains of development. You learn that the child was born premature and had a very low birth rate. You start to work with the child in the classroom to enhance his development and you suggest strategies for the parents to use at home. You also discuss with the parents the value of early intervention and encourage them to enroll the child. Which of the following statements is the best to describe this scenario?

- a. This example best describes macro-level child advocacy.
- b. This example best describes what a quality early childhood professional should do and is not related to types of advocacy.
- c. In this example, the teacher is engaged in mesosystem-level advocacy.
- d. If you were writing congressmen to recommend more funding for early intervention, you would be demonstrating advocacy, but this example is not advocacy.

8. Ferando was born in the US and has spent his 15 years of life here. While his parents came to the US legally, Ferando has several relatives who recently immigrated to the US illegally and they are staying at Ferando's home. When Ferando had to be interviewed by the police due to a community violence incident that occurred in the park he was hanging out in, he "shut down" and would not answer the police officer's questions. Based on the information above, which of the following statements best illustrates what might be the reason for Ferando's response to the police.

- a. Ferando has previous personal experiences with the police that have made him distrust them.
- b. Ferando has not been taught to respect the police.
- c. Ferando is fearful to speak with police because he has recently read in the news about discrimination by police against persons of color such as himself and he is concerned that speaking to the police may lead to his illegal family members being deported.
- d. Ferando most likely is involved or knows someone who was involved in the violent incident, so he is unwilling to speak about the situation with the police.

9. Ladonna is a senior in college in her last semester before graduation. She has put off one of the hardest classes until now and the final test could make or break her ability to successfully complete the semester. Ladonna prepared well for the test, but when she got into the room, she could feel her heart race. She was nervous, but after she started the test she started to relax as she was able to answer most of the questions. What type of stress was Ladonna experiencing?

- a. toxic stress
- b. tolerable stress
- c. positive stress
- d. This experience is not one that is considered by the literature to be real stress.

10. You have a student in your preschool class named Sammy. Sammy has showed significant growth across all domains of development from August to December. After the winter break, you noticed that Sammy wasn't acting like himself. He was having bathroom accidents, something he had not had prior to now. He was also withdrawing from his peers and not engaging as much with the activities. One day when you had to help him into clean clothes, you notice a mark on his leg. What statement below aligns with your training?

- a. Sammy is just experiencing some regression in his development, which is not uncommon in early childhood.
- b. The change in Sammy's behaviors indicates to you that you may need to find out more about what is happening to Sammy as you believe that there might be some maltreatment involved in his care.
- c. As a teacher, you confront the mother when she picks up Sammy and tell her that you believe she has used corporal punishment on Sammy which is impacting his development.
- d. As a teacher, you should monitor Sammy more closely and make sure that he is doing his work. You will be more aware of the signs that he needs to go to the bathroom and make sure that you get him there in time until he returns to normal.