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Evaluating the Effectiveness of Adverse Childhood Experiences and Trauma Informed Care Training for Mental Health Nurses

Felicia Gathings

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EVALUATING THE EFFECTIVENESS OF ADVERSE CHILDHOOD
EXPERIENCES AND TRAUMA INFORMED CARE
TRAINING FOR MENTAL HEALTH NURSES

by

Felicia Gathings

A Doctoral Project
Submitted to the Graduate School,
the College of Nursing and Health Professions
and the School of Leadership and Advanced Nursing Practice
at The University of Southern Mississippi
in Partial Fulfillment of the Requirements
for the Degree of Doctor of Nursing Practice

Approved by:

Dr. Cathy Hughes, Committee Chair
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ABSTRACT

Adverse Childhood Experiences (ACEs) are traumatic events that happened to a person at a young age, and when untreated they have a higher risk of developing a mental illness. ACEs are associated with social problems, illnesses, and physiological issues. ACEs are related to increased health risks and an increase in high-risk behaviors. Despite increase evidence relating ACEs to physical and mental issues, nurses lack training in ACEs and trauma-informed care (TIC). The overall goal of this project was to increase knowledge of ACEs and TIC in mental health nurses when caring for mentally ill patients. Pre-test and Post-test surveys were sent out to 26 healthcare professionals over a four-week period. A quantitative analysis was conducted of the pre-test and post-test survey. The mean was used to measure the central tendency in both questionnaires, using a t-test. After training and education, the results show that mental health nurses did gain knowledge, awareness, and confidence in identifying ACEs and trauma. The results lastly show that overall, the training was effective and there was a need for additional information.

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DEDICATION

First I would like to thank God for giving me the vision. He has provided me with the strength to persevere through all of my challenges. Without him, none of this would have been possible. Thank you, Lord. I would like to thank my husband, Lamarcus, and my three beautiful children, Kade, Riley, and Lydia, for being my motivation daily when I wanted to through in the towel. To my family and friends, I love you guys, and thank you for the love and support over the years.

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LIST OF ABBREVIATIONS

<i>ACE</i>	Adverse Childhood Experiences
<i>APA</i>	American Psychological Association
<i>CDC</i>	Center for Disease Control and Prevention
<i>CE</i>	Continuous Education
<i>CINAHL</i>	Cumulated Index to Nursing and Allied Health Literature
<i>CITI</i>	Collaborative Institutional Training Initiative
<i>DNP</i>	Doctor of Nursing Practice
<i>EAP</i>	Employee Assistance Program
<i>ED</i>	Emergency Department
<i>EHR</i>	Electronic Health Records
<i>Four R's</i>	Realize, Recognize, Respond, and Resist Re-traumatization
<i>HCP</i>	Healthcare Provider
<i>IRB</i>	Institutional Review Board
<i>LPN</i>	License Practical Nurse
<i>NAMI</i>	National Alliance on Mental Illness
<i>RN</i>	Registered Nurse
<i>SAMHSA</i>	Substance Abuse Mental Health Services Administration
<i>TIC</i>	Trauma Informed Care

US

United States

USM

The University of Southern Mississippi

CHAPTER I - INTRODUCTION

Nurses in Mississippi perform many tasks, which vary based on the setting and specialty area (Mississippi Board of Nursing [MBN], 2019). A nurse must provide care according to their experience, training, and skill. When mental health nurses encounter patients who have adverse childhood experiences (ACEs), prevention efforts are secondary and/or tertiary. Many current conditions may be related to traumatic life experiences. Completion of ACEs and Trauma Informed Care (TIC) training is an opportunity for mental health nurses to identify and address trauma. Once trained, nurses will be able to identify ACEs and use knowledge to prevent future risks.

The CDC-Kaiser Permanente Adverse Childhood Experiences (ACE) Study is one of the most extensive investigations of abuse, neglect, and later-life health and well-being and the effects on health in future life. This sentinel research study has been around for 20 years, and mental health nurses are unaware of the knowledge, skills, and attitudes related to the life-long impact of ACEs and the importance of prevention. In many cases, professionals' introduction to trauma-informed practices is through the development of the workforce and continuing education. Therefore, too many mental health practitioners respond to patients without this expertise and use the context to figure out what is wrong. The online training will inform the nurses and health care professionals of the impact and prevalence of ACEs and the need for TIC (Felitti et al., 1998).

ACEs contribute to health consequences and can increase morbidity and mortality rates of patients who have experienced these problems. Healthcare workers, especially those who interact with children, should be trained to detect and recognize ACEs and

provide TIC. ACEs training is significant in improving assessment, performance, and skill among the mental health nurse.

Background

ACEs are associated with multiple social problems, illnesses, and physiological issues. According to Baker, et al., (2018), most patients seek care or therapy because symptoms can no longer be avoided. Patients who have symptoms due to ACEs tend to engage in high-risk behaviors, which can lead to health-related illnesses. Patients who have endured childhood stress, abuse, violence, and trauma are likely to experience mental issues. Therefore, mental health nurses in a healthcare organization should be provided with evidence-based training on TIC practice to support patients with ACEs.

Treatment is enhanced when TIC strategies are used to strengthen practices and produce successful outcomes for patients (McEvedy et al., 2017). Effective TIC is provided when mental health nurses and care providers are educated and trained on how to handle cases that are related to ACEs. Training and preparation enhance the clinical identification, treatment, and methods of managing symptoms. Various methods can be used to increase knowledge, awareness, and skills about ACEs and TIC (Fleishman et al., 2019). Awareness improves the profession of mental health nurses, which facilitates the delivery of quality clinical care to mentally ill patients.

The goal of providing TIC approaches to mental health professionals is to prevent re-traumatizing patients while they seek mental health care. The training is essential for the mental health nurse; this training provides them with an awareness of information and content, such as behavioral and cognitive strategies that decrease the risk of re-traumatizing the patient through treatment and care. This training will provide nurses

with content that enables them to understand the interplay of social, biological, and psychological effects caused by trauma from the past and provide treatment and care strategies that solve past issues to be able to deal with current affairs (Nogueras et al., 2017).

Opportunities such as ACE training is crucial for mental health nurses to identify how current mental issues are related to traumatic life experiences and enable nurses to identify and deal with trauma. According to Baker et al. (2018), the training is essential to help the nurses connect each patient with specific treatment strategies that work in several situations. The training gives mental health nurses the capacity to transform care by using trauma-informed care to provide adequate and relevant interventions for patients with psychiatric disorders.

Significance

At some point in life, more than 50% will have a diagnosis of a mental illness or disorder (Centers for Disease Control and Prevention [CDC], 2016). On average, individuals with severe mental disorders tend to die earlier than the general population. The life expectancy reduction in patients with severe mental disorders is 10-25-years. Suicide, often related to mental illness symptoms, is the 10th most significant cause of death in the United States and the second-largest cause of death among 15-34-year-olds. The risk of dying associated with depression is 1.8 times higher in mental health patients. The cost of severe mental illness in the United States is \$193.2 billion in lost earnings per year. In a single year, one in five Americans will suffer a mental disorder (CDC, 2016).

In addition to this high rate of mental disease, mental health providers are responsible for identifying causes that relate to mental illness and behavioral treatment

strategies. The mental health population tends to not receive the same quality of physical health care as others. One issue around healthcare access for individuals with a mental disorder is the stigma associated with mental illness. The focus must shift to improving access and eliminating the stigma attached to mental illness and continue to modify risk factors to improve health and life expectancy. Severe mental disorders are related to elevated suicide rates. A history of suicide attempts, depression, anxiety, alcohol use, substance use are risk factors for suicide among patients with a mental disorder. Symptoms of mental disorders can cause barriers to seeking care, as well as difficulty with following medical advice. There are many things to do to improve the mental health of people with mental disorders: create protocols for the mental health needs of patients with psychiatric disorders in the following areas: prevention, identification, assessment, and treatment (Esdén, 2018).

Mental health is vital to every person's health, well-being, and ability to live a productive life; thus, prevention of mental health issues is necessary rather than treating a mental disorder. According to Maguire and Taylor, (2019), prevention is possible by educating mental health practitioners on identifying ACEs which when not addressed early enough, causes mental health issues later in life. The mental illness crisis is occurring all over the country, mainly due to ACEs. This crisis creates a great burden among the population and, therefore, effective measures such as early detection of ACEs and training of mental health professionals to adopt different approaches are necessary to respond to the rising of mental health disorders.

Identifying ACEs is important due to the vulnerable population ACEs' serves. Children exposed to traumatic events such as sexual abuse, abusive families, and life

challenges and, stressful childhood should attend counseling and/or receive medication treatment to deal with symptoms from trauma (Oral et al., 2016). In cases where ACEs have not been identified early, and a mental disease occurs, the mental health nurse with relevant training can identify and protect patients from re-traumatization. According to Isobel and Edwards (2017), the TIC approach would allow the nurse to safely and effectively treat mental health patients to reduce the impacts of trauma. The problem found in the chosen facility is the lack of Adverse Childhood Experiences (ACEs) and Trauma-Informed Care (TIC) training for mental health nurses and other healthcare professionals which would help them identify and address trauma. The PICOT for this project is, in mental health nurses working at an outpatient/inpatient facility, how effective is an Adverse Childhood Experiences (ACEs) and Trauma Informed Care (TIC) training in identifying trauma in 4 weeks?

Needs Assessment

In the U.S., the prevalence of adult mental disease is 44 million and the prevalence in youth is 3.1 million (National Alliance on Mental Illness [NAMI], 2020). The state of Mississippi ranked 34th in mental health prevalence and access to care. Adults and youth rank 29th in mental health prevalence and access. Mississippi ranked 2nd as it relates to the prevalence of mental illness (NAMI, 2020). Mississippi ranked 48th in access to care. Suicide ranked 9.4/100,000 in Lee County, according to the community health needs assessment in 2019. The ratio of mental health providers is 1:220 (Community Health Needs Assessment [CHNA], 2019).

The estimated population of the city of interest is 34, 546. Five psychiatrists, two psychiatric mental health nurse practitioners, one child psychologist, two LPNs, seven

RNs, two RN supervisors, one nurse manager, one charge nurse, three employee assistance program (EAP) counselors, two assessment counselors, and one social worker. This facility is part of an organization that is the largest, private, not for profit hospital in north Mississippi and supports a patient-family centered care approach. The total patient population for this facility is currently 1,533. Children and adolescence make up 8% of the facility population. Age 5-8 has 22 patients (pts.), 9-12 (36 pts.), 13-15 (30 pts.) and 16-17 (21 pts.). 92% of the population is adult (18+). The race of the population is 72% (White), 23.1% (Black), 2.2% (unknown), and 1.9% declined. Male 42.9% and female 57%. Diagnosis of depression is 27.2%, anxiety 33.8%, alcohol abuse 1.5%, and opioid abuse 2.5% (CHNA, 2019).

Synthesis of Evidence

A systematic review of the literature was conducted reviewing the effectiveness of ACE and TIC training for mental health nurses, trauma-informed care approach, education on trauma-informed care, ACEs knowledge, Nurses/Health Care Professionals (HCP) caring for patients with positive ACEs, and Persons with ACEs, utilizing USM library system. CINAHL, APA PsycArticles, and APA PsycInfo databases were used to search for the key terms: *mental health, nurses, adverse childhood experiences, trauma-informed care*. There were 126 articles total, 71 CINAHL, 10 APA PsychArticles, and 45 APA PsycInfo. Articles were included based on publishing between 2016 and 2020 and if the article was applied to adverse childhood experiences, trauma, trauma-informed care, mental health, and nurses, except with the original study which was published in 1998.

ACEs Original Study

In a study, conducted by Felitti and colleagues (1998), researchers mailed out a questionnaire about ACEs to 13,494 adults, and 9,508 responded. The questionnaire had seven categories: psychological, physical abuse, sexual abuse, domestic violence, substance abusers in a household, mental illness, or even imprisoned. Half of the respondents had at least one and one-fourth had greater than two. Patients with four or more had increased health risks, an increase in high-risk behaviors, and an increase in obesity.

Informed Care for Emergency Department Nurses

In a pilot study conducted by Hall et al. (2016), researchers used a quantitative and qualitative method to collect data. There were 34 Emergency Department (ED) nurses who participated in the education on trauma-informed care. Themes were based on the effectiveness of education. The training proved effective because they became more informed of trauma on a patient's mental health. ED nurses found implementing trauma-informed care to be challenging to implement the trauma-informed framework in an ED setting, but they understood using trauma-informed care reduces re-traumatization.

Training for Forensic Mental Health Nurses

A systematic review exploring trauma-informed training for forensic mental health nurses, who adopted a trauma-informed approach. This approach helped nurses understand the trauma their patients experienced and the nurses were able to connect patients with other services. After training, nurses self-reported their nurse-patient relationship improved. The training recommends that before any organization implements

trauma-informed care, the organization should start their training with their nurses because they could support and train other staff (Maguire & Taylor, 2018).

Effectiveness of Online Training Traumatic Stress and Trauma-Informed Care

Isobel and Delgado (2018) in a study evaluated a one-day workshop that was designed to increase mental health nurses' knowledge of the impacts of trauma. The goal was that nurses would implement trauma-informed care into their communication approach. A self-reported questionnaire (Likert scale) was used to capture the benefits of the workshop. The majority of the participants increased knowledge, confidence, and showed interest in applying the knowledge into practice.

Hoysted et al. (2019) in a randomized controlled trial study investigated the effectiveness of an online training program on traumatic stress and trauma-informed care. The nurses and/or physicians who worked in the emergency department in Australia or New Zealand were included in the study. There was a total of 71 staff, 32 were randomly assigned to the training, and 39 were placed in the control group. A pretest was given to all participants. The training was a 15-minute training online. A posttest was given to training participants one week later and then to all participants one month, in which the control group was given access to training. The training group had greater knowledge after the training and one month after training than the control group. The training group self-reported and reported high satisfaction rates. The results of the study proved that staff knowledge improved due to training.

Effectiveness of Trauma-Informed Training on Mental Health Professionals

Niimura et al. (2019) in a study evaluated the effectiveness of trauma-informed training of 65 mental health professionals from 29 psychiatric hospitals in Tokyo. This

one-day training was used to assess attitudes towards trauma-informed care. Most participants reported that trauma-informed care was implemented in their practice. The training improved attitudes towards a trauma-informed care approach. To assess the attitudes, researchers used an *Attitude Related Trauma Informed Care Scale* (Niimura et al., 2019). The results of the scale increased from pre-test 5.1 to 5.5 after training and 5.4 three months later.

Evaluation of Trauma-Informed Care Workshop for Mental Health Professionals

Palfrey et al. (2019) in a study evaluated a workshop that was created to encourage mental health professionals to use a Trauma-informed care approach. A pre and posttest measured confidence, awareness, and attitude towards trauma-informed care. The participants self-reported that after the workshop their confidence, awareness, and attitude increased, and the barriers decreased as it relates to trauma-informed care.

ACEs Knowledge

Mental illness is an epidemic in the United States with high prevalence and risks associated with trauma and adverse childhood experiences. This problem affects many people in this country, making it one of the leading health indicators in the United States. As a result, health sectors, government, and non-government organizations have put measures into place to address the mental health issue (Sege & Browne, 2017).

When untreated, mental illness increases the risk of unsafe and unhealthy behaviors such as violence, self-harm, alcohol abuse, and in extreme cases, suicide. Therefore, mental health workers should provide treatment and preventive measures to increase resilience and reduce risks (Fleishman et al., 2019). Many of the common mental

health conditions are triggered by childhood trauma, which typically happens while a person is young and develops after a few years, triggering psychological illnesses.

According to Oral et al. (2016), mental health nurses' training will provide them with the required expertise and capacity to align people with adequate treatment care and support to manage mental illness healthily. Healthcare workers are responsible for providing quality health care consistent with their level of education, experience, and skills to support individuals with mental illness. Training is a way to increase staff performance, and connect the requirements to the description of the job. Training is essential to increase the competency and productivity of staff to keep the business moving forward. The most important reason is to develop the knowledge and skills of staff (El Hajjar & Alkhanaizi, 2018).

Nurses/Health Care Professionals (HCP) caring for Patients with Positive ACEs

Trauma-informed care education is crucial for mental health nurses to effectively provide clinical practices that avoid re-traumatizing the patient while providing treatment and care (Palfrey et al., 2019). Effectiveness in ACEs and TIC training can meet patients' needs and provide quality services to mentally ill patients. Training offers nurses a greater chance to take the knowledge they have gained and to educate others. Also, education and training will enable mental health nurses to identify critical issues through knowledge gained on ACEs and use the training, skills, and experience provided by TIC to provide evidence-based assessment and treatment.

Delivering trauma-informed care improves the understanding, knowledge, and experience of how trauma-based incidents in patients link to the actual mental health status (Lancaster et al., 2019). According to Baker et al. (2016), mental health nurses and

practitioners can transform care by using trauma-informed care to provide adequate and relevant interventions for patients with psychiatric disorders. Nurses can detect ACEs and use TIC knowledge to provide treatment, care, and management to prevent risks that may arise in the future.

Persons with ACEs

According to Baker et al. (2018), effectiveness through training results in positive outcomes by reducing trauma and the likelihood of getting a mental illness. Exposure to trauma and ACEs causes harmful effects on an individual's psychological functions, resulting in adult mental health issues. Thurston et al. (2018), state most studies of trauma exposure show that accumulation of traumas causes cumulative effects in long-term health. From this research, every mental health nurse working in a behavioral health (inpatient and outpatient) facility has encountered various cases of childhood adverse experiences. The experiences are higher among children who endure multiple traumas causing adverse health outcomes. Maguire and Taylor (2019) state that creating awareness in ACEs prevalence enhances the design of appropriate interventions to ACEs, which neglects in nursing practices.

Rationale

The Trauma-Informed Approach is a concept created for behavioral health settings that were put in place to increase sensitivity in inpatient care and prevent re-traumatization. This approach pertains to mental health problems in children or adults who have experienced childhood trauma. As explanatory research, this project focused on the 4 R's approach of TIC and how this approach can be a guide for mental health professionals (Fleishman et al., 2019).

The 4 R's approach is realizing, recognize, respond, and resist re-traumatization. Mental health nurses must understand that mental health is a different type of specialty. Most patients who come in for care are experiencing symptoms of a mental illness or having some emotional instability. The timing has come for mental health nurses to realize the impact of trauma and understand where trauma can take patients. Professionals in mental health should be the first to recognize the signs and symptoms of trauma in their patients. ACEs issues such as abuse, domestic violence, neglect, and drug abuse issues have an impact on how a patient's future turns out. Nurses being in the frontline of providing care to patients can apply TIC strategies to prevent the harmful effect of adverse childhood issues. Once professionals can recognize the signs and symptoms of trauma; change can occur by integrating the knowledge of different trainings into policies and procedures. The most important R is resisting re-traumatization. Re-traumatization is when patients re-experience a traumatic event that occurred in their lives. Trauma can be triggered by a situation, attitude, expression, or environment. To resist re-traumatization, professionals must be conscious of the care and in tune with their biases (Fleishman et al., 2019).

Providing training can increase a nurse's knowledge and awareness concerning ACEs to identify short- and long-term effects associated with ACEs. The concept involves using knowledge and expertise to assess and treat patients affected with ACEs which develops into mental health illness if not adequately addressed. TIC considers the nature of trauma and promotes an environment of healing and recovery. TIC is about ensuring all patients feel physically and emotionally safe, are noticed and listened to, and are given a voice (Sweeney et al., 2018).

Specific Aims

Even though mental health has a high prevalence rate (Rishel et al., 2019), there is a gap between mental health nurses not being educated and trained in their specialty. The purpose of this project is to increase the knowledge of ACEs and TIC in mental health nurses when caring for mentally ill patients by watching an ACEs and TIC evidence-based video. Many current conditions may be related to traumatic life experiences. Completion of training is an opportunity for mental health nurses to prevent and address trauma. Nurses will then be able to connect patients with appropriate services and resources. Once trained, the mental health disciplines will be able to identify ACEs and use TIC approaches to prevent future risks.

Specific Aims

The specific aims for this project are for nurses/HCP and were obtained from online training objectives.

- To identify adverse experience and their response to stress
- To understand the importance of healthy brain development and the impact of toxic stress
- To understand that experiencing adversity in childhood can have an impact on a person's life course
- To identify a range of social and community impacts resulting from ACEs
- To identify key examples of protective factors that can help prevent ACEs and build resilience
- To understand what it means to look at adverse childhood experiences through a trauma-informed lens

- To understand how building resilience can help mitigate the impact of ACEs (Adverse Childhood Experiences [ACEs], 2020).

DNP Essentials

DNP Essential I: Scientific Underpinnings for Practice was met by using the concept model of Trauma-Informed Care-Four R's. This evidence-based model is the foundation of this project. TIC enables patients to have the best care available after witnessing a traumatic experience. A trauma-informed approach is being used by many other disciplines in mental health and outside of mental health.

DNP Essential II: Organizational and Systems Leadership for Quality Improvement and Systems Thinking was met after assessing the need for the facility. The assessment led to providing evidence-based training to the facility to improve quality care for patients by increasing knowledge and skill in ACEs and TIC. This environment has many different disciplines that provide different services to patients, which caused the inclusion of other mental health professionals.

DNP Essential III: Clinical Scholarship and Analytical Methods for Evidence-based Practice was met by promoting ACE and TIC as an intervention for the facility to improve patient outcomes. This essential was also reached by analyzing various literature to decide the right approach for this project. Mental health nurses are provided with information, awareness, and skills to recognize cases of traumatic childhood encounters and to use the evidence-based expertise and tools they have gained to deliver trauma-informed treatment and to avoid risks that could occur in the future.

The last DNP Essential VIII: Advanced Nursing Practice was met by moving forward with this project to support other nurses to achieve excellence in nursing. The

teaching of mental health nurses will help them to learn and improve skills, behaviors, and evidence-based expertise on the consequences of ACE and provide trauma-informed treatment and prevention. This intervention is one way that this organization can improve the quality of care and help patients develop skills to cope with their experiences.

Summary

A mental health nurse has the ability to support patients who have endured abuse in their lives. Trauma-informed care training equips mental health nurses with knowledge, skills, and experiences to work and help patients with mental health illness. Having this knowledge will enable mental health care providers to identify causes related to mental issues and develop treatment strategies.

CHAPTER II – METHODOLOGY

This project used explanatory research to focus on the factors that affect the effectiveness of the training to explain the relationship between variables. The information was collected within four weeks of completion of the online training. This information will determine the effectiveness of ACEs and TIC training at this facility in identifying trauma, which results in mental health issues. The completion of the pre-test and post-test survey will be useful to show the extent of what the nurses learned (Sege & Brown, 2017). Effectiveness will be assessed using the pre-test and post-test by comparing confidence, skill, knowledge, and awareness concerning ACEs and TIC.

Intervention-Project Intervention

The training video from the CDC website, *ACEs Introduction to Adverse Childhood Experiences Early Trauma Online Learning*, <https://acesonlinelearning.com>, was offered to nurses and other mental health disciplines who work at the Behavioral Health (inpatient/outpatient) facility (ACEs, 2020). There were seven units with a total of 50 minutes that helped mental health professionals understand, recognize, and prevent adverse childhood experiences (ACEs). This training was retrieved from ACEs online learning, which offers various trainings, tools, and resources based on the best available evidence and research on adverse childhood experiences and trauma-informed approaches. No CE credit was available for these modules.

Recruitment and Consent

An email about the online service along with directions of the pre-test was sent to all nursing staff and healthcare providers at the facility. A handout was placed in the outpatient and inpatient units. The handout provided details of the project and listed date

and time. The participants had seven days to respond to email by stating they would like to participate in the training before starting the pre-test survey. A reminder email was sent on day six.

Pre-Test

Once consent was verified and the pre-test survey was completed, the link to the training was accessed from the recruitment email. The training was completed within seven days of receiving the link. The online service was available for seven days. The office manager for outpatient and the nurse manager for inpatient emailed each participant.

Online Training Sessions and Post-Test Survey

The training sessions included ACEs, toxic stress, attachment, resiliency, and trauma-informed care as a technique to provide quality care and achieve positive clinical outcomes. Following training, the different disciplines went back to assigned areas and applied what they learned. Four weeks later, the office manager and nurse manager sent each nurse/discipline information on the post-test survey. The survey was used to measure the effectiveness of training, knowledge, skill, and assess how information was implemented during triage. This approach was connected to fit the Trauma-Informed concept model of realization, recognizing, responding, and resisting re-traumatization which focuses on building resilience and helping patients heal and promote recovery from trauma. The feedback from the nurses will provide data regarding the online training video and insight into the effectiveness of training for adverse childhood experiences and trauma-informed care for mental health nurses.

Population of Interest and Setting

The participants involved in this project are mental health nurses and other mental health disciplines who work in inpatient and outpatient behavioral health facilities. The mental health professionals received one educational video to which they watched to increase their knowledge and skill to provide quality healthcare to patients with mental health illness. Inclusion involves participants who are mental health nurses or mental health professionals who work in inpatient and outpatient behavioral health facilities. The mental health disciplines in this research included licensed practical nurses, registered nurses, psychiatrists, psychologists, social workers, and therapists who have specialized in mental health care. The participants are required to have one year of experience working in behavioral health facilities to help patients with mental illness. Exclusion involves nurses or other disciplines working in a behavioral health facility with less than one year of mental health experience. Lastly, participants must have access to a computer to take modules, read English, and have one hour available outside of work to complete the survey.

The project used a voluntary response sampling method. The opportunity to do the training was presented to every discipline in the facility. A total of five psychiatrists, one psych NP, one child Psychologist, two LPNs, seven RNs, two RN Supervisors, one RN Nurse Manager, one Charge Nurse, three EAP Counselors, two Assessment Counselors, and one Social Worker were eligible to participate. The sample size included all the nurses and other disciplines in the facility who accepts the training. There were 26 individuals included. The recruitment method used in this project was email announcements and flyers posted in outpatient and inpatient. The email announcement

was sent to all the mental health nurses and other disciplines working in the behavioral health inpatient or outpatient facility. The setting of the training was online due to COVID-19. The training video was accessed online using links that were sent by the office manager and nurse manager to each participant.

Measures-Data Collection

The mental health nurses and other mental health practitioners completed a pre-test survey, completed the training, and lastly completed a post-test survey. The surveys were available online using Qualtrics[®] through The University of Southern Mississippi. The pre-test survey measured if they were knowledgeable about ACEs and TIC before the training including demographics such as age, gender, race, ethnicity, discipline-nursing or other mental health providers, years in discipline, years in mental health setting and facility. The post-test survey measured effectiveness, knowledge, skill, and changes in care. The design of the survey used an interval scale. The training video was completed online and took approximately 15 minutes to complete. The pre-test survey consisted of 18 questions of interval choice questions that respondents choose to answer or select prefer not to answer. The post-test survey consisted of 9 questions of interval choice to answer. The post-test did not allow the surveyor to proceed unless the question was answered.

Analysis Qualtrics[®]

Descriptive statistics were used to evaluate the characteristics of the training. The total number of participants' were 11. All nurses and mental health staff met inclusion criteria and consent. The surveys were made available by accessing the link provided by the office manager and nurse manager. The data was collected as a group or aggregate

data and no individual responses were reported. A quantitative analysis was conducted of the pre-test and post-test survey. The mean was used to measure the central tendency in both questionnaires, using t-test. The statistical analysis in this research involved analyzing information using descriptive statistics collected from pre-test and post-test surveys. This type of method was used to summarize the results of the mental health nurses at the behavioral health facility.

Ethical Considerations

The facility's Institutional Review Board (IRB) has the authority to approve, require modification to, or disapprove all research activities that involve an investigator, facility, or patient group. A letter of support from the facility director was provided. The USM IRB approval was given before proceeding with intervention (IRB protocol #20-333). The participants were educated regarding informed consent, pre-test, and post-test survey. Consents and surveys will remain anonymous to ensure privacy and to eliminate violations in confidentiality. All electronic data will be deleted 6 months after all graduation requirements have been met.

Project Timeline

In the month of May, Chapters I and II were submitted to the chair and committee member. The project investigator spoke to the nurse manager over the inpatient about the intervention. The project investigator submitted an email to the director of outpatient services asking for a support letter. In June, the project investigator met with the chair and committee member about the proposal. The project investigator completed the PPT and proposed the project in June. In July, the project investigator sent in paperwork to IRB for facility and USM. Approval to begin the project was received in August. The

intervention (online training) started in August and ended in September. In September, the project investigator collected the surveys and analyzed the data.

Summary

The summary of this research-based its findings on ACEs and their relationship to the development of mental health symptoms and/or disorders (Butler et al., 2018). The use of evidence-based strategies to intervene in behavior that is high risk may improve the life expectancy of individuals impacted by ACEs (Hall et al., 2016). In addition, training enhances clinical approaches significantly to strengthen confidence to make sure quality care is available to mentally ill patients. Every healthcare provider should learn strategies to identify ACE in patients to prevent mental issues rooted in past experiences. In addition, care providers should be trained in trauma-informed care (TIC) to improve their practice and use the resources available to patients with mental illness. Early detection of ACEs prevents the development of trauma and its effects. Having the required knowledge is crucial to identify causes related to mental issues and develop treatment strategies. This project will increase knowledge for mental health nurses and health care professionals on ACEs and TIC (Young et al., 2020). After data analysis, findings will be presented to stakeholders. Recommendations for the facility will include mandatory training for new hires, implement ACE Questionnaire using electronic health records, and create a referral process for the facility.

CHAPTER III – RESULTS

Qualtrics[®] was utilized for participants to take the survey and afterward the survey data was available for analysis. The total number of participants who received the email were 26. Out of the 26, 11 participants completed the study. All participants met the inclusion criteria. Of the 11 participants, eight (72.73%) were female and three (27.27%) were male; eight (72.73%) were White and three (27.27%) were Black. Nurses made up seven (63.64%), social workers made up three (27.27%), and one counselor (9.09%). Inpatient participants were 6 (54.55%) and outpatient 5 (45.45%). Patient ages (Table 1); years in the discipline (Table 2); years in mental health (Table 3); years at the facility (Table 4).

Table 1

Age of Participants

Age Range	Percent	Number
21-30	9.09%	1
31-40	27.27%	3
41-50	27.27%	3
51-60	27.27%	3
61+	9.09%	1

Table 2

Years in Discipline

Years	Percent	Number
1-5	9.09%	1
6-10	27.27%	3
11-15	9.09%	1
16-20	9.09%	1
21+	45.45%	5

Table 3

Years in Mental Health

Years	Percent	Number
1-5	36.36%	4
6-10	18.18%	2
11-15	9.09%	1
16-20	9.09%	1
21+	27.27%	3

Table 4

Years in Facility

Years	Percent	Number
Less than 1 year	9.09%	1
1-5	45.45%	5
6-10	9.09%	1
11-15	9.09%	1
16-20	9.09%	1
21+	18.18%	2

According to the survey collected before the training, the results indicated that all participants knew how important adversity and trauma is to clinical work with (45.45%) stating it is extremely important. Participants (54.55%) rated their confidence in assessment and responding to trauma as moderately high. Participants (54.55%) rated their knowledge as very knowledgeable. Participants (45.45%) rated their awareness as moderately aware. Participants (54.55%) rated their ability to ask patients about trauma as most of the time.

Table 5

Study Results

Outcome Measures	Mean Pre-Test	Mean Post-Test	N
Relevant to Work	4.27	4.91	11
Confidence in Assessment	4.27	4.55	11
Confidence in Responding	4.27	4.55	11
Knowledge and Skill	3.91	4.18	11
Awareness	3.45	4.82	11
Asks about Trauma	3.91	4.64	11

Summary

After the training, the results indicated that ACEs education and TIC training for mental health nurses was effective in identifying ACEs (Strait & Bolman, 2017). The study results increased (90.91%) in how relevant adversity and trauma in clinical work and (54.55%) in awareness. After training and education, the results show that mental health nurses did gain knowledge, awareness, and confidence in identifying ACEs and trauma. The results lastly show that overall, the training was effective and there was a need for additional information.

CHAPTER IV – DISCUSSION

The results of the survey indicated that the training was effective in increasing relevance, confidence, knowledge, and awareness for mental health professionals. The results also revealed that the training did help mental health professionals in identifying ACEs and trauma. Lastly, each participant felt there was a need for additional information.

The limitations included were that the participants were 72% white and 28% black and 72% were female and 28% were male. These differences limited the generalizability of the study. Another limitation was that outpatient participants received the recruitment email the first day, and inpatient participants received their email three days later for both surveys. Outpatient participants worked 8-5 while inpatient participants worked 7-7. The Nurse Manager over the inpatient unit works four days out the week. These differences made recruitment for the survey difficult.

Future implications for this study would be to engage stakeholders about the benefits of the training by presenting study results. This training should not be limited to mental health providers but primary care providers should have access to training as well. The results revealed that the most experienced in their discipline were more knowledgeable about ACEs and TIC. The results show that this type of training would benefit new hires and/or new graduates. As providers continue to apply ACEs and TIC information to provide quality care, it would benefit providers to have an ACE questionnaire available using EHR.

Behavioral health agencies should include the required assessments to improve early and successful approaches to minimize the occurrence of mental health disorders,

particularly when treating children. Beneficial guidelines on mental health treatment are essential for mental health nurses to deal with daily encounters and interactions of patients with mental illness. The training provides mental health nurses and practitioners' knowledge, awareness, and increase confidence in ACEs by using evidence-based information in their practices to identify patients with ACEs (Strait & Bolman, 2017). Unless the appropriate measures such as training and continuous education are available, these challenges will continue to develop (Esdén, 2018).

This research compared and reviewed different analyses and studies that showed various aspects of ACEs and TIC training among the mental health nurses and practitioners (Butler et al., 2018). From the research, it is clear that one issue that surrounds the access to healthcare for people with mental health illness is a stigma that is associated with mental illness. The focus should be to enhance and provide mental health nurses with effective education on ACEs and training on trauma-informed care in facilities to enhance availability and access to cost-effective mental health services and care. According to Chandler et al. (2018), the availability and accessibility of effective TIC practices help reduce the stigma associated with mental illness. Also, the availability of education to patients about the effective measures put in place to deal with mental illness encourages them to seek treatments to improve health, well-being, and enhance maximum productivity. According to Girouard and Bailey (2017), mental health nurses through adequate training can make sure patients understand the importance of mental health by using evidence-based practices.

The research revealed that there exists a connection between ACEs and mental health issues. ACEs are traumatic events that happened to a person at a young age, and when untreated they have a higher risk of developing a mental illness (Baker et al., 2016). Therefore, this research project is crucial to enhance education on ACEs and apply trauma-informed care practices and strategies to treat and manage mental health conditions.

Conclusion

According to the survey collected before the training, the results indicated that all participants knew how important adversity and trauma is to clinical work, they had confidence in assessment and responding to trauma, and were knowledgeable and aware of ACEs and trauma. After the training, the results indicated that the training for mental health nurses was effective in identifying ACEs and trauma. The study results revealed that relevance and awareness had the largest increase. The results also revealed that after the training, the results show that mental health nurses gained knowledge, awareness, and confidence in identifying ACEs and trauma.

The next direction for this project will be the Mississippi Nurses Association's annual convention. All nurses in every specialty could benefit from ACEs and TIC training, so it is important to disseminate this project and share the work. Dissemination will be an opportunity to continue scholarly efforts.

DNP Essentials were met by completing continuing education, implementation of the intervention, and interpretation of data. Continuing education was chosen based on meeting the DNP Essential or if the education was directly related to the project. Implementing the intervention and interpreting the data met the DNP Essential

requirements, but it also required stakeholders to be involved with the project, making sure consent was obtained and that staff knew participation was voluntary.

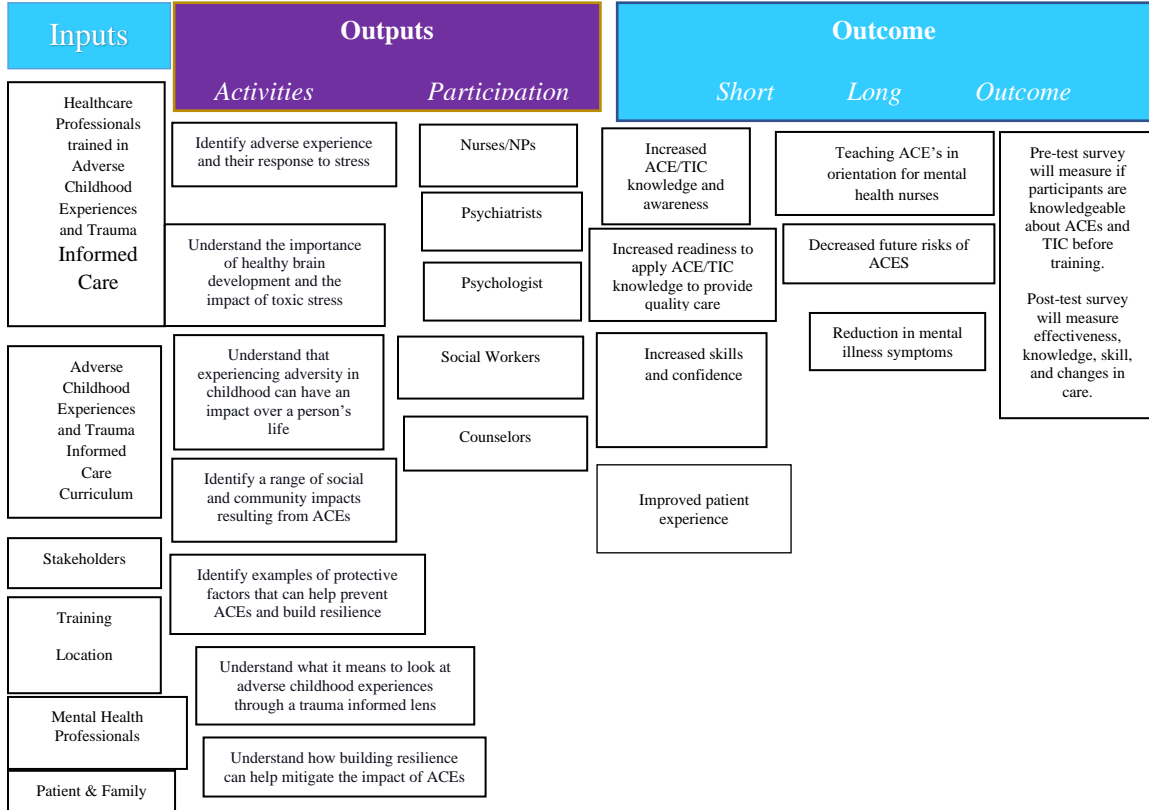
Mental health practitioners require evidence-based training to provide quality care to patients. According to this study, the prevalence of ACEs is high in the mental health population. There is a wide disparity in study awareness among the practitioners of mental health in the absence of an adequate understanding of how ACEs lead to mental health disorders several years after adulthood. Healthcare organizations should develop training and workshops to provide continuous and quick guidance on the occurrence of ACEs and strategies to deal with these traumatic issues.

APPENDIX A – Concept Model

4 R's	Trauma Informed Approach
Realizes	Realizes the widespread impact of trauma and understands potential paths for recovery
Recognizes	Recognizes signs and symptoms of trauma in clients, families, and others involved with the system
Responds	Responds by fully integrating knowledge about trauma into policies, procedures, and practices
Resists	Seeks to actively Resist re-traumatization

SAMHA (2014)

APPENDIX B – Logic Model



Assumptions: The lack of Adverse Childhood Experiences/Trauma Informed Care training for mental health nurses and other healthcare professionals which would help them identify and address trauma.

External Factors: Training Content and presentation styles due to COVID-19 will limit face to face training and result in training being online. Not having access to a facilitator during webinar could pose problems for those who learn differently.

APPENDIX C – Demographics Questionnaire

1. Participant's gender:
 - Male
 - Female
 - Transgendered
 - NA
2. Participant's age:
 - 21-30
 - 31-40
 - 41-50
 - 51-60
 - 61 +
 - Prefer not to answer
3. Participant's race:
 - Black or African American
 - White or European
 - American Indian
 - Asian
 - Native Hawaiian or Pacific Islander
 - Middle Eastern
 - Other (please describe): _____
 - Prefer not to answer
4. Participant's Ethnicity:
 - Hispanic or Latino
 - Not Hispanic or Latino
 - Prefer not to answer
5. Choose your discipline:
 - Nurse
 - Psychiatrist
 - Psychologist
 - Social Worker
 - Counselor
 - Other (please describe): _____
 - N/A
6. Years in the discipline:
 - 1-5
 - 6-10
 - 11-15
 - 16-20
 - 21+
 - N/A

- 7. Mental health setting:
 - Inpatient
 - Outpatient
- 8. Years in a mental health setting:
 - 1-5
 - 6-10
 - 11-15
 - 16-20
 - 21+
 - N/A
- 9. Years at facility:
 - Less than 1 year
 - 1-5
 - 6-10
 - 11-15
 - 16-20
 - 21+
 - N/A

APPENDIX D – Pre-Test/Post-Test Survey

Pretest and Posttest Survey (Nurses/Healthcare Professionals)

1. On a scale of 1-5, 1 being not at all important and 5 being extremely important, how would you rate the extent that trauma and adversity are relevant to your clinical work?

Not at all Important	Extremely Important
<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>

2. On a scale of 1-5, 1 being extremely low and 5 being extremely high, how would you rate your level of confidence in the assessment of trauma and adversity in your clinical practice?

Extremely Low	Extremely High
<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>

3. On a scale of 1-5, 1 being extremely low and 5 being extremely high, how would you rate your level of confidence in responding to disclosures of trauma and adversity?

Extremely Low	Extremely High
<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>

4. On a scale of 1-5, 1 being not knowledgeable at all and 5 being extremely knowledgeable, how would you rate your level of knowledge and skills in working with individuals affected by trauma and adversity?

Not Knowledgeable	Extremely Knowledgeable
<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>

5. On a scale of 1-5, 1 being not at all aware and 5 being extremely aware, how would you rate your level of awareness of services and resources for trauma and adversity?

Not at all Aware	Extremely Aware
<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>

6. On a scale of 1-5, 1 being never and 5 being always, how often do you ask your patients about their possible trauma experience.

Never					Always
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Posttest Survey (Nurses/Healthcare Professionals)

1. On a scale of 1-5, 1 being not effective at all and 5 being extremely effective, how would you rate the effectiveness of the training?

Not Effective					Extremely Effective
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2. On a scale of 1-5, 1 being much worse and 5 being much better, how were you in identifying trauma after the training?

Much Worse					Much Better
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

3. On a scale of 1-5, 1 being extremely high and 5 being extremely low, how would you rate your need for additional education?

Extremely High					Extremely Low
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

APPENDIX E –IRB Approval Letter

Office of
Research Integrity



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NOTICE OF INSTITUTIONAL REVIEW BOARD ACTION

The project below has been reviewed by The University of Southern Mississippi Institutional Review Board in accordance with Federal Drug Administration regulations (21 CFR 26, 111), Department of Health and Human Services regulations (45 CFR Part 46), and University Policy to ensure:

- The risks to subjects are minimized and reasonable in relation to the anticipated benefits.
- The selection of subjects is equitable.
- Informed consent is adequate and appropriately documented.
- Where appropriate, the research plan makes adequate provisions for monitoring the data collected to ensure the safety of the subjects.
- Where appropriate, there are adequate provisions to protect the privacy of subjects and to maintain the confidentiality of all data.
- Appropriate additional safeguards have been included to protect vulnerable subjects.
- Any unanticipated, serious, or continuing problems encountered involving risks to subjects must be reported immediately. Problems should be reported to ORI via the Incident template on Cayuse IRB.
- The period of approval is twelve months. An application for renewal must be submitted for projects exceeding twelve months.
- Face-to-Face Data collection may not commence until USM's IRB modifies the directive to halt non-essential (no direct benefit to participants) research.

PROTOCOL NUMBER: IRB-20-333

PROJECT TITLE: Evaluating the Effectiveness of Adverse Childhood Experiences and Trauma Informed Care Training for Mental Health Nurses

SCHOOL/PROGRAM: School of LANP

RESEARCHER(S): Felicia Gathings, Cathy Hughes

IRB COMMITTEE ACTION: Approved

CATEGORY: Expedited

7. Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.

PERIOD OF APPROVAL: August 11, 2020

Donald Sacco, Ph.D.
Institutional Review Board Chairperson

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