

IMPLEMENTATION OF STANDARDIZED TRAUMA AND RESILIENCY
SCREENING IN A YOUTH THERAPEUTIC RESIDENTIAL SETTING:
A QUALITY-IMPROVEMENT PROJECT

by

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DEDICATION

This project is dedicated to my resilient family, grandparents, parents, brother, sister, and children for inspiring me to simply begin where I stand, knowing that perseverance can take me as far as my heart leads me. To my support team, my husband and four sons with whom I am grateful to share years of love over home cooked meals, great music, and many adventures. You have been my greatest teachers. Remember, regardless of how busy or trying your day has been, there is always time to enjoy the sunset and a good cuddle with the dog.

To the children who walk the road of adversity, may you remain hopeful that the future will bring promise. That the systems serving you will be guided with impactful research, engaging positive and supportive measures as early as possible, by adults who see who you really are. You matter.

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ABSTRACT

The purpose of this DNP project was to establish standardized trauma and resiliency screening for patients within the youth therapeutic residential setting. A lack of standardized screening and documentation of trauma exposure and resiliency factors was identified internally by the organization. The establishment of routine screening for traumatic experiences provides valuable data, which will inform and be incorporated into the patient's treatment plan. Additionally, routine screening of the patient's resiliency measures complements the trauma information that was collected. This information is important as resiliency plays a critical role in countering the downward trajectory that is set by a child's experience of trauma. Resilience can act as a safeguard from the negative outcomes that are linked with experiencing early trauma.

The major objectives for this project were (1) for staff to implement trauma screening and (2) resiliency screening with youth in a therapeutic setting. Not only does the trauma score provide key information about the patient, but it can also guide treatment and serves to establish a baseline for the continued tracking of trauma and resiliency experiences. Additionally, continued data tracking beyond discharge is a requirement of the recent Family First Prevention Services Act of 2018. This project's aim was for participants to utilize the organization's electronic health record to collect and house the screening data. At a later date, the information can be utilized for advocacy of funding, vitals tracking, and for future quality-improvement processes.

The results include that staff obtained screenings for 100% of the organization's residential population, with screenings for trauma (ACEs) and resiliency (CYRM-R), incorporating the new process into routine practice within the short PDSA cycle. The results of staff success in incorporating the new screening process for trauma and resiliency with youth residents during weekly routine visits indicate that this practice change is not only achievable, but can be applied during already established weekly visit time between existing trained staff and the patients within the two communities' residential therapeutic group homes.

CHAPTER ONE

HIGH RISK AND RURAL

The children in Montana's welfare system face numerous adversities, such as rurality and high levels of early trauma, placing them at risk for negative outcomes (Rebbe et al., 2017; Hughes et al., 2017). Given this challenging reality, this DNP project was dedicated to the implementation and standardization of trauma and resiliency screening of youth residing in therapeutic residential facilities within the state of Montana. Ideally, the results will lead to enhancement of positive influential factors with the potential to mitigate childhood exposure to traumatic events.

The Problem

Children who experience out-of-home placement as part of the child welfare system have increased risks for lifelong impacts on the social, mental, and physical aspects of health (Bailey et al., 2018). In the rural state of Montana, children inherently face the obstacles of limited access to healthcare resources and everyday amenities (HPSA, n.d.). In addition to rurality, children involved with Montana's child welfare system and foster care program have amplified risks for compounding negative factors that influence overall health (Combs et al., 2018; Stevens et al., 2017). The connection between adverse childhood experiences (ACEs), commonly referred to as childhood trauma, and poor overall outcomes has been well-established by research over the past 2 decades. This body of research has resulted in the development of several instruments to measure the phenomenon (Felitti et al., 1998; Anda et al., 2006; Stevens et al., 2017; Hughes et al., 2017; Bailey et al., 2018). The most commonly experienced traumatic

childhood events, adverse childhood experiences, include various forms of abuse and neglect, witnessing domestic or community violence, experiencing household dysfunction due to parental divorce or separation, living with a family member with a mental illness or substance abuse, or living with an adult who has experienced incarceration (Anda et al., 1998; Stevens et al., 2017).

Background

Adverse childhood experiences or ACEs are traumas experienced before the age of 18 years, such as witnessing violence in the home or community, losing a family member to suicide, or experiencing environmental instability due to homelessness, living with an adult using substances or an adult with a mental illness, or experiencing parental separation (Anda et al., 1998). ACEs are linked with increased risk for chronic health issues, mental illness, and substance use, as well as effects on education and employment in adulthood (Anda et al., 2006; Stevens et al., 2017). Montana's population health statistics include high rates of suicide, high rates of child abuse and neglect, and foster care placements at almost 3 times the national average (US DHHS, 2017). Montana's suicide rate has been within the top five states for the past few years (US DHHS, 2017). Recall that losing a family member to suicide, witnessing violence, or living with a person with a mental health diagnosis are all adverse childhood experiences. Continued research indicates that trauma-informed care and prevention strategies have the possibility to mitigate the negative effects of traumatic childhood experiences that lead to compounding negative health effects for children in foster care (Anda et al., 2006; Rebbe et al., 2017).

Federal statistics denote Montana's number of children in the foster care system at 3 times the US national average (US DHHS, 2017). One of the most significant and negative

outcomes for the foster care population is that 49% of females and 33% of males who exit foster care become young parents before the age of 21 with lower incomes and educational attainment. Therefore, the children born to young parents who experienced out-of-home care are also at risk for negative outcomes, meaning that the risks carry over to the next generation, emphasizing the importance of intervention for youth in foster care (Combs et al., 2018; Rebbe et al., 2017; Stevens et al., 2017).

The relationship between adverse childhood experiences and risk is labeled as a dose-response effect of the trauma score. The higher the trauma score, the greater the risk of an increase in negative outcomes in mental, social, and chronic health conditions (Filetti et al., 1998; Anda et al., 2006). Despite nationwide adverse-childhood-experience data that supports the dose-response relationship between childhood trauma and negative health outcomes, the potential to counter the effects of ACEs has also been demonstrated through providing protective factors and building resiliency in children (Bethell et al., 2019; Rebbe et al., 2017; Sege et al., 2017). Protective factors have the potential to mitigate the damaging developmental and neurobiological effects of childhood trauma (Anda et al., 2006; Bethell et al., 2019).

Protective factors are supports that strengthen an individual's resilience. Resilience is achieved through sound mental and physical health despite early maltreatment (Rebbe et al., 2017; Bethell et al., 2019). The state of Montana recognizes the importance of preventive and interventive family programs with funding and guidelines in the Family First Prevention Services Act of 2018. This bipartisan act was seen as a landmark reform of the federal child welfare funding of Title IV-E and IV-B Social Security Act, aspiring to prevent children from entering the welfare system while engaging preventative and interventive services (The Family First

Prevention Services Act [FFSPA], 2018). Federal funding approval for preventative services, such as mental health services, substance use treatment, in-home parenting education, as well as a focus on avoidance of child removal and congregate care placement with the goal to reduce the trauma of displacement for children within the foster care system within the FFSPA (2018), outlining the requirements of Qualified Residential Treatment Programs (QRTPs), were to include the following: (1) licensure, (2) utilize a trauma-informed treatment model that includes service of clinical needs, (3) include family members in the treatment process, and (4) offer six months of support after discharge. Application of the trauma-informed approach during and after discharge can improve a welfare-involved child's resilience (Sege & Browne, 2017). Li, Chng, and Chu's (2019) meta-analysis reviewing 23 studies with 7,469 children from foster care and 6,161 from residential care found that the majority of the patients in the group homes were from lower socioeconomic backgrounds with less education, high trauma histories, and had experienced abuse. These factors served as predictors of poorer outcomes with the study reporting children in residential care experienced struggles in externalizing and internalizing behaviors (Li, Chng, & Chu, 2019). Protective factors have the ability to counter the negative outcomes associated with out-of-home care (Bailey et al., 2018; Sege & Browne, 2017).

Scope

The setting for this Doctor of Nursing Practice quality-improvement project was a nonprofit organization with approximately 800 employees across the state of Montana. The organization provides mental health services for children through adults, early childhood education and family support, group care for people with disabilities, school-based mental health, addiction support services, and therapeutic group-home care for children. The practice setting was

the organization's therapeutic residential group homes in two Montana communities. The primary contact was the organization's youth services director. Additionally, the clinical director and the organization's CEO also supported the project. While assessing the organization's internal sources for data, clinicians and providers had described ongoing concern for children as they exit care from the organization's therapeutic group homes. A 2019 study specified that children in family-style foster care tend to have higher levels of general activity at baseline than those in group care, in terms of functioning and behavior management (Li, Chng, & Chu, 2019). During an interview with a staff member, a qualitative perception of the following was shared: up to "75% of females exiting care will likely become teen or young parents and experience associated poor outcomes" (service director, personal communication, Aug. 20, 2020). Staff indicated that the majority of youth residential clients have experienced trauma. While multiple staff indicated familiarity with the ACE screening, no member was able to report on protocol or standardized use of trauma or resiliency screening within the organization. The service director and the clinical director expressed a desire to explore standardized collection of ACE and resiliency information from clients (service director, personal communication; clinical director-QI leader, personal communication, Aug.–Sept. 2020). Stakeholders in this project included the patients, their families, prescribers, frontline staff, program managers, administrators, child welfare workers, and acute and outpatient care partners. The participants in this project for the implementation of standardized trauma and resiliency screening were group-home staff, therapists, and program managers.

Purpose

The purpose of this project was to implement standardized trauma and resiliency screening. The project plan included obtaining ACE and resiliency screening information from clients in therapeutic group homes in two communities. A data report pulled from the organization's electronic health records (EHR) indicated a baseline of one ACE screening performed across all of the organization's clients and services between 2014 and today's date, September 18, 2020. The search start date was from 2014 as this is when the organization began utilizing the current EHR system. The EHR will be utilized for data collection and retrieval, and for documentation and tracking the implementation of ACE and resiliency screening.

Proposed Intervention

The proposed intervention was for the implementation of standardized trauma and resiliency screening for child and youth clients of the organization's licensed therapeutic group-home programs. The intervention will lay the groundwork for a future goal of including a rescreening of resiliency as part of discharge planning, guiding the patient's transitional plan of care when leaving the organization. Evidence supporting the connection between child trauma and negative health outcomes was well established and continues to grow. While the effect of childhood adversities on adult health remains, mounting research is more hopeful, indicating that supportive adult presence can positively impact children across physical, psychological, and emotional domains (Bailey et al., 2018). Further, research found that positive adult involvement was an effective protective factor for children experiencing out-of-home placement (Bailey et al., 2018). This evidence supported the goals of this project which aimed to establish an evidence-

based and standardized approach for trauma and resiliency screening among youth in community-based residential facilities in two Montana towns.

While trauma-informed care is a commonly used term in practice, there was limited research directing health providers toward specific care approaches with traumatized patients. A few of the more familiar trauma-informed models are the Attachment, Self-Reflection, and Competency (ARC), the Sanctuary Model, and the Children and Residential Experiences (CARE) program (Bailey et al., 2018). Trauma-informed care's components, suggested by Hanson and Lang (2016), target the following: education and training of the workforces, including an understanding of secondary traumatic stress; "trauma-focused services" encompassing evidence-based practices and standardized screening, and organizational environment and practices including safe physical environments, staff collaboration, defined policies, and supportive leadership (Bailey et al., 2018, e12). Consequently, meeting the proposed project aims included the training of staff on foundational theories of trauma and resiliency, as well as education on the use of screening tools. The ACE Inventory and the Child and Youth Resiliency Measure (CYRM-R) were the selected tools as these were originally discussed with the organization's service director and were familiar to the DNP student implementing this project (Anda et al., 2006; Jefferies, McGarrigle, & Ungar, 2019).

Congruence with Organization

Implementation of trauma-informed approaches to improve staff skills and patient outcomes aligned with the organization's mission to help people live independently, thus empowering families and children to function at their optimal capacity (CEO, personal communication, December 10, 2020). Additionally, the establishment of standardized social-

emotional screening for youth is recommended by the American Academy of Pediatrics (2016), particularly in primary care. The clients served by this organization characteristically have high trauma scores and experiences, thus underscoring the need to assess the patient's baseline ACE score and resiliency measures in order to offer the most appropriate trauma-informed treatment while they are active patients within the system, whether it be in the outpatient, community-based, school-based, or residential-based areas (Beers et al., 2017). To make this undertaking feasible, the project will be implemented using the organization's electronic health record for implementation within the organization's therapeutic group-home programs in two communities.

Another benefit of this project is assisting the organization to become aligned with the Family First Prevention Services Act (FFPSA) 2018 legislation, which aimed to improve outcomes for children who are currently involved in the child welfare system as well as prevention of entry for those who are at risk of entering the system. According to the new FFPSA (2018) guidelines, organizations that provide residential care with federal monetary support are required to report to the state of Montana communication and tracking of patients for 6 months beyond their discharge date. In order for residential placement to be approved beyond a 2-week stay, the facility must be a Qualified Residential Treatment Program, have licensed nursing and clinical staff onsite, facilitate outreach to family members, document family integration into treatment, and have a discharge plan with family-based care support for 6 months post discharge (FFPSA, 2018). This DNP project lays the foundation for meeting the federal regulations set by FFPSA (2018) along with the potential to improve patient care and outcomes (Bailey et al., 2018).

CHAPTER TWO

INTRODUCTION OF LITERATURE

Children who are involved with the welfare system or experience out-of-home care are at increased risk for lifelong impacts on mental and physical wellness (Hughes et al., 2017; Rebbe et al., 2017). Along with Montana's rural and geographic access-to-care barriers, out-of-home care further adds to the risk for negative health consequences (Bailey et al., 2018; Stevens et al., 2017; HPSA, n.d.). Decades of research support the connection between childhood adversity and adult chronic health issues and the top reasons for adult mortality (Felitti et al., 1998; Anda et al., 2006). Thus, the proposed project was timely as it aimed to establish methods for tracking factors identified in countering the epidemic of trauma's impact on lifelong health (Felitti et al., 1998; Anda et al., 2006; Stevens et al., 2017; Hughes et al., 2017; Bailey et al., 2018).

A search for peer-reviewed literature published between 2015 and 2020 was conducted using the databases Google Scholar, PubMed, PsycInfo, ProQuest Central, Web of Science, Sage Journals, PsycNet, PsyTests, and Cinahl. Seminal articles published outside of the 2015–2020 range were included as these works are foundational to the project. Search terms employed included the following: child abuse, trauma, neglect, child welfare, adverse childhood experiences, ACEs, trauma screening, resiliency, pediatric screening, foster care, out-of-home care, residential care, youth mental health, welfare system, mental health, HOPE, and protective factors. Variations of these terms were used to produce comprehensive search results, excluding opinion and case studies. Studies ranged from level I to level VII research and included systematic reviews, meta-analyses, and randomized control trials. Approximately 50 articles were identified in the search for research on childhood adversity, screening measures, trauma-informed interventions, and

resilience. Multiple systematic reviews and articles discussing the care approaches, recommendations, and interventions were selected for use, totaling 30 sources for this project.

The negative impact of childhood trauma on health and life was extensively described in the literature identified (Bailey et al., 2018; Filetti et al., 1998; Stevens et al., 2017). The connection between experiencing childhood trauma and poor outcomes is referred to as a dose response relationship, meaning that as the number of traumatic experiences increases, so does the risk for concerning negative outcomes (Filetti et al., 1998; Anda et al., 2006; Stevens et al., 2017). In Filetti et al.'s (1998) original ACE study, the researchers found that adults who had experienced four or more traumatic childhood experiences were over 2 times more likely to have hepatitis, 4.5 times more likely to have depression, and 12 times more likely to experience suicidality; subsequent research demonstrates similar outcomes (Anda et al., 2006; Hughes et al., 2017). Less uniformity was found in the literature review of trauma-informed approaches or screenings for use within child welfare and residential programs. Most screenings for childhood trauma include retrospective data collection; adults provide information on childhood experiences rather than children, which eliminates the possibility of engaging impactful early intervention. Additionally, retrospective data collection allows room for bias in reporting. Recommendations for trauma-informed-care (TIC) program components include the following: staff education and training, education on secondary traumatic stress, evidence-based practices, standardized screening, and organizational environment and practices, staff collaboration, clear policies, and strong leadership (Bailey et al., 2018; SAMHSA, 2014). These program components are important as meeting the proposed project aims include staff education on foundational theories of trauma and resilience, as well as training on screening tool usage. The

Adverse Childhood Experiences (ACE) Inventory and the Child and Youth Resiliency Measure (CYRM-R) are the two tools utilized in this project, given that the ACE was originally suggested by the organization's service director and that the DNP student was familiar with both the ACE and CYRM-R (Anda et al., 2006; Finkelhor et al., 2015).

The literature identified and selected for this project primarily fell into the following categories: childhood trauma, out-of-home care, trauma-informed care, welfare-involved youth, and protective factors. A summary of the articles within each category is provided and discussed here.

Childhood Trauma

Childhood trauma is commonly referred to as adverse childhood experiences (ACEs). ACEs are defined as adverse events such as severe household dysfunction, neglect or abuse, or witnessing violence against a family or community member (Felitti et al., 1998, Stevens et al., 2017). ACEs include household disruption like parental divorce or separation; living with a person with a mental health diagnosis, substance use, incarceration; or experiencing a loss by suicide, within the first 18 years of life (Felitti et al., 1998; Stevens et al., 2017). Research has demonstrated a link between experiencing childhood trauma and adult diseases and disorders like substance abuse, mental health struggles, violence, weight, and chronic physical health diagnoses (Felitti et al., 1998; Hughes et al., 2018). The dose response of the adverse childhood experience score links trauma to cumulative adult risks for chronic illnesses, like heart disease and cancer, as well as substance use and health concerns associated with the top causes of adulthood mortality (Felitti et al., 1998; van der Kolk, 2014; Anda et al., 2006; Albaek, Kinn, & Milde, 2017; Hughes et al., 2017). In other words, the greater the number of ACEs a person has, the

higher the risk for adult chronic disease and early mortality. Several theories underscore the evidence connecting childhood adversity to an increased risk for adult disorders. This is particularly true for alterations in attachment, brain development, and the neurobiological and behavioral impacts from experiencing early childhood trauma (Kundakovic & Champagne, 2015; van der Kolk, 2014; Hughes et al., 2017).

ACEs and the Welfare System

Low socioeconomic status leaves certain children at a higher risk of experiencing compounding adversities. In Montana, the rate of welfare system-involved children under 18 years of age is almost 3 times the US national average (US DHHS, 2017). As of 2017, Montana's population reached over 1,000,000 people, with its foster-care numbers averaging 16.8 per 1,000, compared to the national average of 5.8 per 1,000 individuals (US DHHS, 2017). These statistics illustrate that children involved in Montana's welfare system face the challenge of access to care based in rural locations along with higher risks for negative health outcomes. Many welfare-involved youth experience caregiver separation as a result of experiencing traumas associated with physical abuse, parental drug use, or household dysfunction, all of which are on the childhood trauma list (Anda et al, 2006; US DHHS, 2017). In a 2019 meta-analysis of children in foster and residential care, researchers found that most of the children involved in these services had experienced multiple traumas (Li, Chng, & Chu, 2019). The majority of the children in the group homes had similar adversities of low socioeconomic status, less education, and high trauma histories, including abuse, which served as predictors of poorer outcomes; researchers reported that the children in residential care experienced struggles in externalizing and internalizing behaviors as well as poorer perception of care (Li, Chng, and Chu, 2019).

Among the negative outcomes for youth in the welfare system is that children who exit the foster care system have between a 33% and 49% likelihood, for males and females respectively, of becoming young parents accompanied by low educational attainment and low income (Rebbe et al., 2017; Conradi, Wherry, & Kisiel, 2011). Children involved with the welfare system are at high risk for beginning adulthood with negative outcomes with the effects potentially reaching the children of these young parents, thus impacting generations to come (Rebbe et al., 2017; Stevens et al., 2017). It is crucial for professionals such as therapists, child service workers, prescribers, and educators in the welfare and out-of-home care systems to work closely with mental health providers in order for children to receive trauma screening, trauma-focused assessment, and connection to appropriate trauma-focused services (Conradi, Wherry, & Kisiel, 2011; Sege & Browne, 2017).

Protective Factors

Protective factors are positive influences that have the ability to counter traumatic experiences through building resiliency in children (Anda et al., 2006; Sege & Browne, 2017). Examples of child-protective factors are positive family support, a sense of belonging in peer and school settings, safety in the home, and engagement by multiple, dedicated, non-parental adults (Sege & Browne, 2017). Resiliency is the ability to bounce back from adversity, to succeed despite challenges (Rebbe et al., 2017).

Resiliency can be achieved through physical and mental health stability (Rebbe et al., 2017). The instillment of protective factors within a child's life has the potential to counter the effects of experiencing early childhood adversity (Sege & Browne, 2017). Protective factors, like the consistent provision of basic needs and safety and support by peers and family, have the

potential to mitigate the damaging developmental and neurobiological effects of childhood trauma (Anda et al., 2006; Bethell, 2019). Studies have found that positive adult support is an effective protective factor for children experiencing out-of-home placement (Bryson et al., 2017). Once an individual reaches adulthood, the effects of childhood adversities on health outcomes become more evident and challenging to counter, while growing research shows promising results of the positive impact that a supportive adult presence in childhood can have on the physical, psychological, and emotional domains in youth (Bailey et al., 2018). This evidence strengthens the importance for the project goal of establishing an evidence-based standardized approach for trauma and resiliency screening among youth in the organization's community-based therapeutic residential facilities. The screening data provide information to assist the treatment team in delivering patient-centered care; in this case key information includes the trauma and resiliency factors. Research has demonstrated that incorporating protective or resiliency factors into a child's life can produce a mitigating effect, reducing trauma's influence on the individual's health outcomes (Beers et al., 2017; Bethell et al., 2019). The addition of protective factors can decrease the child's risk for poor mental health outcomes like depression and substance use and other chronic social and health issues (Bethell et al., 2019).

Trauma-Informed Care

The intervention for this project involved implementation of a standardized trauma and resiliency screening for patients served in the therapeutic group-home setting. Implementation of the project assisted in preparing the organization for its goal of rescreening for resiliency as part of discharge planning, guiding the patient's transitional plan of care when exiting the

organization's programs. Evidence supporting the connection between child trauma and negative health outcomes is well established and continues to grow while trauma-informed-care methodologies remain elusive (Kundakovic & Champagne, 2015; Hughes et al., 2017). In the limited research available, it is noteworthy that trauma-informed-care (TIC) research evidence is not standardized. While SAMSHA (2014) provides guidance regarding the components of TIC, there is little direction toward specific care approaches with mixed results. It is suggested that TIC models include staff education and training, a focus on secondary traumatic stress, inclusion of evidence-based practices and standardized screening, an organizational environment that is safe and collaborative, and incorporation of defined policies and strong leadership (Bailey et al., 2018).

A few of the more commonly recognized trauma-informed models are the Attachment, Regulation, and Competency (ARC) model, the Sanctuary Model, and the Children and Residential Experiences (CARE) program (Bailey et al., 2018). The aforementioned models are costly and require hiring an outside trainer to initiate and continue TIC with these approaches (Bailey et al., 2018). Without additional monetary support for this practice change, the project aim was met by the training of staff on trauma and resilience basics and training on the use of free screening tools. The ACE Inventory (Appendix C) and the Child and Youth Resiliency Measure (Appendix B) were the tools selected for utilization as these were originally discussed with the organization's service director and familiar prior to implementation of this project (Anda et al., 2006; Bailey et al., 2018). The ACE survey has consistently been utilized in trauma research over the past 2 decades, beginning with the seminal 1998 study by Felitti et al. and a large number of cumulative research studies since then, and has replicated the collective

influence of early adversity on health (Anda et al., 2006; Stevens et al., 2017). While screening itself has not been linked with outcome improvement, the AAP (2010), AACAP (2019), and SAMHSA (2014) recommend standardized screening in various healthcare settings as a necessary piece of establishing and delivering quality care for patients. Trauma affects health through environmental and behavioral influence, as well as the invisible exertion of influence on a child's brain development (Kundakovic & Champagne, 2015; Ivey, 2020). The original ACE questionnaire had 17 items under three main categories, while subsequent versions of the screener include additional categories of trauma, demonstrating internal consistency and validity (Petrucci, K., Davis, J., & Berman T., 2019). Internal reliability and a lack of item bias are strengths of the CYRM-R, and it is recommended for measuring resilience across cultures and contexts (Jefferies, McGarrigle, & Ungar, 2019).

Current State of Practice

As of today, the American Academy of Pediatrics (2010) and the American Academy of Child & Adolescent Psychiatry (AACAP) (2019) recommend routine behavioral and developmental screening, early recognition, and early intervention; comprehensive mental health education, resources, and service availability; and innovative collaboration between primary care providers (PCP) and mental health clinicians to improve access to mental health services. AACAP (2019) recommends regular screening for social-emotional and mental health in pediatric primary care and in the school setting. However, AAP and AACAP recommendations are yet to be incorporated in a standardized manner within the PCP setting, in child welfare, or in the residential program of the current organization. Screening children can assist in guidance of referrals and interventive supports that can modify the trajectory of health and mortality for

individuals (Petruccelli, Davis, & Berman, 2019). Despite the evidence supporting the impact of routine screening and referral, it is estimated that the majority of youth who need mental health support are not receiving the necessary services; thus more can be done (Beers et al., 2017; SAMSHA, 2014).

Interventions

Organizational staff confirm that an informal collection of patient-trauma information is scattered amongst various intake inquiries for patients when entering the youth residential program; thus multiple challenges exist. Standardization of patient-trauma information collection can improve the implementation process (Program director, personal communication, Sept. 16, 2020). The American Academy of Pediatrics (AAP) (2010) recommends early periodic screening, and the American Academy of Child & Adolescent Psychiatry (AACAP) (2019) adds routine mental health screening, early recognition, and early intervention for mental health concerns; referral and availability; and innovative collaboration to best serve children. Screening and referrals can change the trajectory of health and mortality, while it is estimated that the majority of youth who need mental health support are not receiving the necessary services (Beers et al., 2017). Research supports the addition of trauma assessment in practice as a means to provide guidance and for informing quality practice (Bryson et al., 2017). Accomplishing the implementation of standardized screening in a residential-care facility is no easy task with the main challenge of staff shortages. This project's work connects with more recent government requirements, enforcing this change for good practice, although linking these strategies is especially challenging when working with children exhibiting symptoms of traumatic stress and when dealing with caregiving systems. Research supports that regular screening for trauma and

mental health is a necessity for children and adults (Beers et al., 2017, Ivey, 2020). Beers et al.'s (2017) quality-improvement project focused on the pediatric primary care setting, in which regular mental health screening is counted upon as regular practice, with in-vivo challenges having produced inconsistent outcome data.

Impact

The impact of screening is linked with the initiative to provide children with the necessary supports in order to improve protective factors and individual resilience (Sege & Browne, 2017). As described in the previous sections, research dictates that despite experiencing adversity in childhood, a child can have promising outcomes if engaged in positive factors that mitigate risks from past trauma (Bethell et al., 2019). Routine screening for children and youth helps providers identify concerns early on, facilitating appropriate interventions to mitigate the risk for compounding factors while process integration can impact successful delivery of high-quality patient-centered care (Beers et al., 2017). Most recently, the Family First Prevention Services Act of 2018 (FFPSA) expanded funding for preventive and interventive services for families. FFPSA (2018) established guidelines, as well as a timeline, for meeting program requirements. The requirements of qualified residential treatment include the need for well-justified discharge planning that includes post-care tracking for patients exiting therapeutic residential programs. This project's goals helped to establish the foundation for high-quality discharge planning and post-care tracking documentation, positioning the organization for meeting the new regulatory requirements from the FFPSA (2018) guidelines. Additionally, implementation of a standardized screening-practice change aimed to improve patient outcomes,

projected to be demonstrated by data gathered throughout the newly established process, over the long run.

CHAPTER THREE

METHODOLOGY

This chapter describes the theoretical and conceptual frameworks used as guidance for this practice change project. The project followed Lewin's change theory (Wojciechowski et al., 2016) and the Model for Improvement incorporating the method in the Plan, Do, Study, Act process (IHI, 2017). The implementation of routine patient screening was performed by residential staff participants over a two-and-a-half-week project cycle.

Theoretical and Conceptual Framework

Lewin's original 1940s change theory provided a basic framework for the quality-improvement process. Lewin explains the change process occurring in three different phases, unfreezing, transition, and refreezing (Wojciechowski et al., 2016). In order for a new practice to occur and become adopted within an organization's culture, successful change must happen. This organization's leadership communicated support for this practice change and assisted in motivating staff in support of this practice change. The first step in Lewin's change theory is unfreezing; next comes the transition phase, when the change happens; the final step of refreezing occurs when the change is incorporated as a norm in the individuals' and the organization's practices (Wojciechowski et al., 2016). Lewin discussed that leaders recruit and keep people motivated for change, establishing defined reasoning and clear expectations (Wojciechowski et al., 2016). Setting of expectations and continued motivation throughout the process entails both good communication and the drive to continue. Until the change becomes part of the organization's culture, there is a chance of reversion to old patterns; in this case,

returning to old practices would be the cessation of trauma and resiliency screening (Wojciechowski et al, 2016).

The Model for Improvement's approach for quality improvement supports stages of change with the incorporation of the Plan, Do, Study, Act (PDSA) cycle (IHI, n.d.). Deming's PDSA cycle allows for testing and documentation of the practice-change activity (IHI, n.d.). The timeline for this project was one two-and-a-half-week cycle. Completing the first PDSA cycle helped to inform the DNP student about necessary changes to the screening implementation practice in real time and allowed for reflection on feasibility of the practice-change of standardized trauma and resiliency screening (IHI, n.d.).

Agency Description

The host agency is a larger, Montana-based, nonprofit organization, employing roughly 800 individuals. In addition to therapeutic group-home care, the organization provides mental health services for children through adults, early childhood education and family supports, group care for people with developmental disabilities, school-based mental health support, and addiction support services. The organization has approximately 40 residential homes serving children and adults in Montana.

Setting

The clinical setting for this project was within the organization's youth therapeutic residential facilities. The project sites were residential homes located in two different Montana communities. The project was implemented in eight therapeutic homes for males and females ages 5 to 17 years of age.

Target Population

The participants in this project were the staff who led the youth patients' treatment-plan formulation. The participants included staff members between the ages of 22 and 65, all of whom have bachelor's degrees and a quarter of whom also hold master's degrees. The staff's bachelor's degrees varied; master's degrees were in the areas of social work (LCSW) and psychiatric counseling (LCPC). The participating clinical staff roles were LCPCs or LCSWs, with house managers filling the remaining three quarters of participants. The number of participants was 12 staff.

Description of Stakeholders

The care team within the organization included the following members: mental health prescribers (MD and APRNs), nurses, licensed mental health professionals, managers, and support staff. Stakeholders for this project included the organization's leadership, the patients and their families, psychiatric prescribers, frontline staff, program managers, administrators, child welfare staff, child advocates, and acute and outpatient care partners. The key stakeholders were the project participants who perform the patient intakes, leading the patients' care-plan development over the course of treatment in the program.

Site-Specific Facilitators and Barriers to Implementation

The organization's service director was the main contact assisting with management of project implementation. She was the champion for practice change. Along with the service director, licensed clinicians who served as team leaders were responsible for ensuring that the new patient screenings were completed. Other staff that were indirectly involved with the project

included the floor staff, prescribers, the patients, and the electronic health records staff. The DNP student completed a strengths, weaknesses, opportunities, and threats (SWOT) analysis with the organization's CEO. The main identified barriers to smooth practice change were time, staffing shortages, and individual variance (Appendix F). While the licensed clinicians have weekly visits with the group-home clients, information technology issues, individual resistance to change, the pandemic, lack of staffing, and time constraints due to crisis management had the potential to impede incorporation of the new screening process.

Project Design

Restatement of Purpose

The purpose of this quality-improvement project was to implement standardized trauma and resiliency screening in the youth therapeutic group-home setting. The organization's care-plan development team for patients in their residential youth group homes plan to incorporate the new screening process via staff performing the ACE and CYRM-R screenings with clients. The electronic health record (EHR) was selected for data collection, documentation, and tracking of the implemented screenings. Standardization of trauma and resiliency screening lays the groundwork for a future goal of including a rescreening of youth resiliency as part of discharge planning, guiding the patient's transitional plan of care when patients exit the organization's programs. This practice-change proposal arose based on evidence supporting the connection between child trauma and negative health outcomes (Anda et al., 2006; Hughes et al., 2017; Stevens et al., 2017). Growing research indicates that engaging resources such as stable environments, structured practices, and supportive adults can positively impact children across physical, psychological, and emotional domains (Bailey et al., 2018; Bethell et al., 2019).

Further, more recent studies have found that positive adult support is an effective protective factor for children experiencing out-of-home placement (Bailey et al., 2018; Thompson et al., 2017). This evidence supports the goals of this project to establish a standardized approach for trauma and resiliency screening among youth in community-based residential facilities with a long-term goal of rescreening youth prior to discharge and post discharge, in order to demonstrate a change in patient resilience over time.

SMART Goal

The project's goal specifically aimed for staff implementation of standardized trauma and resiliency screening among residents of therapeutic group homes through measuring of the completed Adverse Childhood Experiences survey (ACE) and the Child and Youth Resiliency Measure (CYRM-R). A SWOT (strengths, weaknesses, opportunities, and threats) analysis was performed with the organization's CEO. The SWOT provided valuable input on the organization's current status, which reinforced the use of a quick-change process that honors the organization's staffing shortage and funding issues by not adding unnecessary costs, staffing, or technology requirements for completion of the practice change (Appendix E). The project goal was projected to be attainable as most of the information was already being gathered throughout various patient interview steps, allowing the project to formalize information collection through use of the selected screening tools, to be accomplished by professional staff during routine weekly client visits (Bryson et al., 2017; Wojciechowski et al., 2016). This project was the first cycle in the organization's quality-improvement process for standardized screening measures utilizing the plan, do, study, act (PDSA) (IHI, 2017; Appendix D).

Project Methods

Description of Intervention

This quality-improvement project's goal of implementing standardized trauma and resiliency screening for patients in the organization's therapeutic group-home programs mirrored the recommendation for standardized screening in primary care and school venues (AAP, 2010). While standardized social-emotional screening is recommended in primary care by the American Academy of Pediatrics (AAP) (2010) and the American Academy of Child and Adolescent Psychiatrists (AACAP) (2019), there is little evidence on standardized trauma screening within residential group-home settings (Thompson et al., 2017). Montana State University's graduate-program librarian assisted with the lengthy search for resources of trauma and resiliency screenings tools utilized in similar community-based mental health settings. The results of the searches in the major databases were limited. The most applicable materials revealed information on organization-wide trauma-informed care (TIC) training as lengthy, with costly assessment recommendations (SAMSHA, 2014; Thompson et al., 2017). With limited evidence of feasibility and in order to accommodate the time and funding parameters of this project, TIC principles provided guidance for the implementation of valid and reliable screening tools selected for this project (SAMSHA, 2014). Thus, the quality-improvement data measures consisted of a comparison between the number of completed ACE (trauma) and CYRM-R (resilience) screenings at baseline, prior to implementation, and at the end of the two-and-a-half-week implementation cycle.

Human Subject's Protection/Ethical Considerations

The participants in this project were staff members who work with youth in therapeutic residential homes in two Montana communities. All of the participants were adults. The participants agreed to participation in the DNP project for the two-and-a-half-week implementation cycle. The participants were informed with a description of the project, the potential risks involved, and a guarantee of confidentiality and anonymity. Montana State University's Institutional Review Board chairman was contacted, and the project qualified for "exempt protocol" (M. Quinn, electronic communication, Nov. 6, 2020 & Nov. 20, 2020) (Appendix F).

Measures and Instruments

The total of completed ACE (trauma) (Appendix C) and CYRM-R (resilience) (Appendix B) surveys were the main data to be collected. Measures were collected at baseline and at the end of the two-and-a-half-week implementation cycle. The measures were compared in order to demonstrate change between the total occurrence of trauma and resiliency screening for child and youth clients in the organization's residential group homes pre- and post-project implementation.

Procedures/Implementation Plan

The steps in the Plan, Do, Study, Act process were completed in online meetings and by staff between meeting dates. After providing verbal consent, the staff participated in communication and training for the initial step (Plan) in the PDSA worksheet (Appendix D). This step took place via an online meeting with the DNP student, the service director, and participants. During this step, the staff received education and training on the screening tools; the

ACE and the CYRM-R. Immediately following the online training, participants initiated the project implementation (Do) of trauma and resiliency screening. The implementation of screening included staff completion of the screening tools with patients during weekly visits. The staff collected patient screening information during routine documentation of patient visits. The service director was championing the screening process during biweekly staffing meetings. At the end of the two-and-a-half-week cycle the Study portion began; the DNP student's work with the staff members and the director to collect the data. Two and a half weeks after project initiation, the participants planned to meet with the DNP student and the service director via the same online format (Study) to analyze the data, to compare predictions, and collect reflections on the process. Finally, in the Act step, based on staff feedback, modification of the trialed practice change was to be formulated and next steps decided upon (IHI, 2017; Appendix D).

General Description

The step-by-step implementation plan was developed through conversation between the organization's service director and the DNP student. The following project steps were identified (Bryson et al., 2017; Thompson et al., 2017):

1. Meet with the service director and include clinical director in email communication
2. Define tools for utilization
3. Plan implementation format and deliverables
4. Obtain approval for tools and training
5. Formulate timeline and venue for implementation

6. Meet with electronic health record management staff regarding feasibility of adding tools to patient record system
7. Identify the location for tools within the electronic health record
8. Work with service director to schedule online training meeting
9. Apply for IRB approval
10. Obtain participant consent; implement education and training on new trauma and resiliency screening protocol during participant meeting
11. Initiate standardized screening in services
12. Check-in biweekly over the two-and-a-half-week implementation cycle
13. Schedule PDSA follow-up meeting with participants; extract and compile implementation data
14. Gather in original meeting venue, review data, collect participant feedback, compile PDSA information, and modify next PDSA plan
15. Process and summarize data and disseminate findings to service director and participants

Once completed, the data can be shared with MSU faculty, colleagues, and other relevant entities.

Data Collection Plan

Staff will collect information from standardized screening of trauma and resiliency from youth group-home patients. This process will begin after the initial training session. After implementation initiation through the two-and-a-half-week cycle, a report of completed screenings will be collected by the participant and shared with the designated lead staff member.

The DNP student will communicate weekly with the project champion and with participants at the end of the two-and-a-half-week cycle. A repeat meeting with completion of the PDSA work will end the cycle, occurring via another participant zoom meeting. A summary of the data gathered will be processed and written up for dissemination to the participants and service director and the organization's executive staff. A baseline measurement of screenings collected prior to project implementation will be collected. The aims of this study are to achieve a rate of 80% of patient screenings completed by the end of the first cycle after implementation of standardized screening for childhood trauma (ACE) and resiliency (CYRM-R) for patients within the therapeutic group homes. Ultimately, and beyond the scope of this project, the organization aims for 100% of patient screenings. The collection of resiliency measures will be repeated during discharge planning for all patients exiting the program.

Data Analysis

If the planned improvement is executed as expected, staff will screen patients with the trauma and resiliency measures during the two-and-a-half-week implementation of the project and enter the data into the EHR. At the end of the two-and-a-half-week cycle, with the assistance of the service director, screening reports will be compiled and reviewed by the DNP student. A summary of the data will be shared in a follow-up meeting. Data shared in that meeting will include results of the completed screenings, completion of the Study step, which incorporates feedback from participants on the process; how the new screening process worked, how the process can be improved, and formulation of a plan for subsequent PDSA cycles, with input on feasibility for sustainability in practice (IHI, n.d.).

Timeline of Project Phases

The IRB application for exempt status was sent to the MSU Institutional Review Board (IRB) after the project proposal presentation and defense were completed on November 13, 2020. As expected, the project was designated as exempt as the project met IRB exemption guidelines with adult staff participants providing consent and no required direct contact with patients. The practice change focused on improving the staff's process of screening patients that began December 2, 2020, and was completed on December 18, 2020.

Resources

Resources for implementation of the practice change to implement standardized trauma and resiliency screening included personnel who perform the screening, the DNP student who provided the training and education, managers for staff support, the service director, and the information technology staff who maintain the electronic health record. The screenings were printed and completed for later upload into the EHR. The EHR, staff time for training, and any time required to complete the screenings were not allotted any additional amount of funding or staff time. This QI project utilized already established patient time with a goal to streamline information collection as well as provide tangible measures for reference when formulating and modifying the patient's treatment plan.

Feasibility and Plan for Sustainability

Implementation of routine training on the screeners will be added to new-staff training and annual-skills training sessions. The goals involve a combination of record review, periodic

training, and routine training to ensure needs are met for different learning styles (Beers et al., 2017).

Establishment of standardized trauma and resiliency screening will provide excellent baseline data for the clients entering the organization's services. This data gathering is expected to be repeated as part of the patient's discharge-planning process. The trauma and resiliency information allows for a comparison of baseline trauma and resiliency measures upon program entry to data collection repeated later, during discharge. This data assists in laying the groundwork for meeting deliverables of the Family First Prevention Services Act (FFPSA) (2018) criteria. The FFPSA legislation (2018) expanded early intervention and prevention services as well as aftercare from licensed therapeutic group-home services. Establishing a standardized screening process for patients within the programs sets the foundation for meeting the FFPSA (2018) requirements of tracking patient measures for 6 months post discharge from residential homes. Additionally, the data collected for this quality-improvement project have potential use for advocacy of funding for prevention, intervention, and transitional services for patients in the organization's therapeutic programs. The long-term organizational goal is to have baseline trauma and resiliency data on patients that can be compared with repeat measures during discharge planning, again to be repeated during the six-month post-care tracking. Ideally, the data measures will provide a roadmap of change in the trauma exposure and resilience measures compared with discharge resilience and post-care resilience measures, demonstrating efficacy of the intervention services the child received during participation in the organization's services.

CHAPTER FOUR

RESULTS

The purpose of this DNP project was for staff to initiate trauma and resiliency screening for patients in the youth therapeutic residential-care setting. The project took place in two Montana communities within the organization's licensed therapeutic homes. The majority of youth in the homes are part of Montana's foster system (service director, personal communication, Feb. 4, 2021). Well-established evidence backs the connection between childhood trauma and negative health outcomes (Felitti et al, 1998; Jefferies et al., 2019). Positive influences, such as a supportive adult, have been found to be effective protective factors for children experiencing out-of-home placement (Bailey et al., 2018). The establishment of routine trauma and resiliency screening for patients provides valuable data to inform the patient-centered treatment plan, safeguarding youths' risk for negative outcomes (Jefferies et al., 2019). The principal measures for this project were the number of screenings collected through staff implementation of trauma screening utilizing the Adverse Childhood Experiences (ACE) survey and the number of resiliency screenings utilizing the Child and Youth Resiliency Measure (CYRM-R) (Anda et al., 2006; Jefferies, P., McGarrigle, L., & Ungar, M., 2019).

Demographic Information

Participants engaged in this project during December, 2020. Participants were residential program staff within a large Montana-based nonprofit organization. The staff consisted of clinical leads, team members, managers, and assistants with ages ranging from 22 to 65 years. The majority of participants were licensed clinical professional counselors with a master's level

education. The remaining participants were case managers, house managers, support staff, or clinical counselor candidates. Participants utilized the trauma and resiliency screening tools with youth in the organization’s residential population.

Table 1. Participant Demographics

Demographic Information	Participants	
	Age	22 to 65 years of age
	Education	BA, BS, MA, MS
	Employment	1 to 16 years
	Title	program manager, therapist, clinical lead, home manager
Center Staff		

Across the organization’s youth residential programs, 71 of the 79 clients were in the state’s custody, more commonly known as part of the foster care system (service director, personal communication, Feb. 4, 2021). This project focused on the 39 youth in two communities served by the organization. Most of the children were part of the foster system, all had experienced displacement, and the majority had high trauma scores (service director, personal communication, Dec. 2, 2020). The children’s ages ranged from 5 to 17 years. Out of the 39 youth, 10 carry an autism spectrum diagnosis, and one experienced a traumatic brain injury (service director, personal communication, Feb. 4, 2021).

Project Outcome Measures

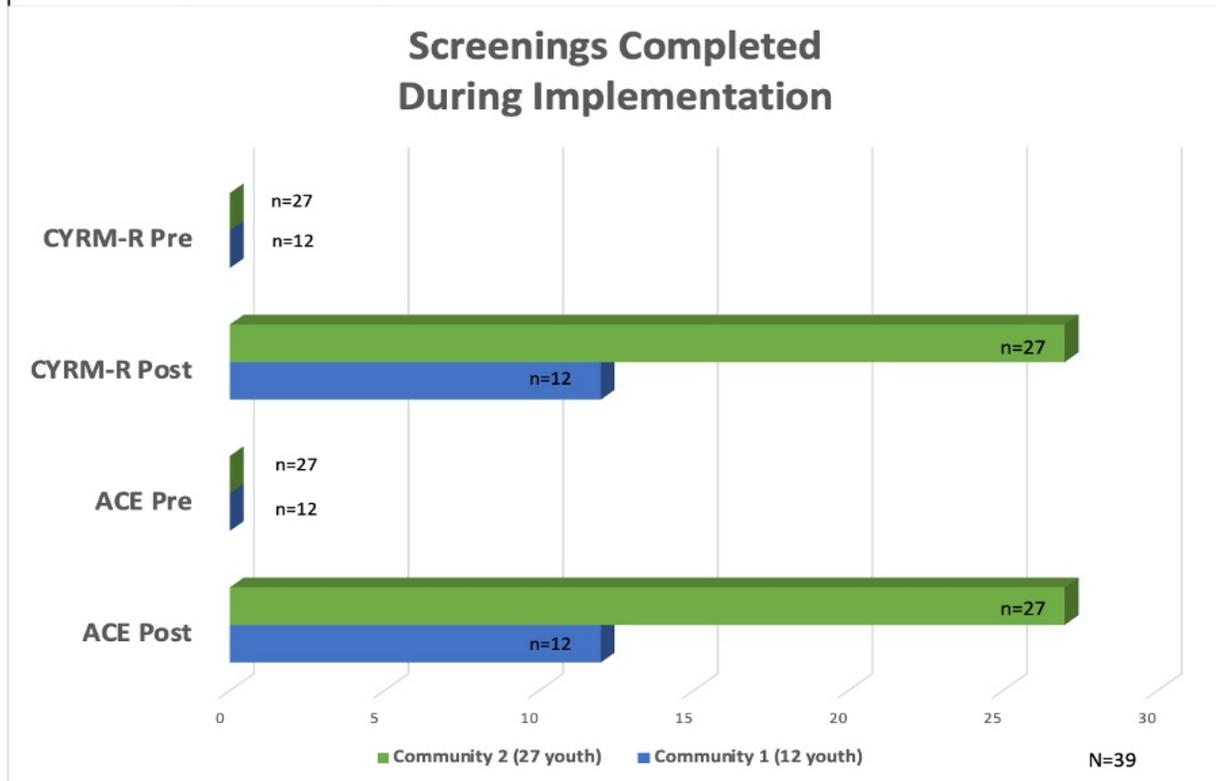
This quality-improvement project measured the total of completed screenings at the end of the two-and-a-half-week PDSA cycle, which aligned with SMART goals through the following. Specific; measurement of the number of trauma and resiliency screenings completed with youth in residential group homes in two Montana communities. Measurable; collecting the total number of trauma (ACE) and resiliency (CYRM-R) screenings completed before and after (pre- and post-) project implementation. Attainable; the project goal was for 80% of residential patients to be screened during the project implementation, believed to be achievable as the staff had one-on-one visits with each patient at least one time per week. Relevant; standardized screening will help the organization establish a common measure of the patient's trauma and resiliency scores. Finally, the project was Time Bound within the two-and-a-half-week PDSA implementation cycle.

Table

Table 2 below illustrates the occurrence of screenings that were measured as the total number of screenings prior to (pre-) project implementation and the total after (post-) the two-and-a-half-week project implementation. The collected data included the following: a total of 0 ACE (trauma) screenings were completed pre-implementation compared with 39 total ACE (trauma) screenings completed by post-implementation. A total of 0 CYRM-R (resiliency) screenings were completed pre-implementation compared with 39 CYRM-R (resiliency) screenings completed by post-implementation. The total number of ACE surveys pre-implementation were 0 in both communities, with 12 completed in Community 1 by post-implementation and 27 completed in Community 2 by post-implementation. The total CYRM-R

(resiliency) surveys completed pre-implementation were 0 for both communities, with Community 1 completing 12 CYRM-R's by post-implementation and Community 2 completing 27 CYRM-R surveys by post-implementation data collection.

Table 2. Completed Screenings



Bugni DNP Project Trauma and Resiliency 2020

Results

Measures collected were a total of completed ACE (trauma) (Appendix C) and CYRM-R (resilience) (Appendix B) screenings over the two-and-a-half-week project course. By the end of the two-and-a-half-week PDSA with a population of 39 patients, 39 ACE screenings were completed and 39 CYRM-R screenings were completed. The results of the project demonstrated staff achievement of 100% of the screenings for the youth in the two communities' residential

programs. At the end of the two-and-a-half-week PDSA cycle, the implementation surpassed the project goal of screening 80% of the population for trauma and resiliency.

Explanation of Missing Data

Since the beginning stages of project planning, patient numbers changed in the youth homes. Between the project-planning steps in September, 2020, and project implementation in December, 2020, the organization discharged four youth from the program. The discharges decreased the number of youth in the services to 39 from 43; thus the total population for the project was 39 youth between the ages 5 and 17 years.

Summary

This project aimed to implement standardized trauma and resiliency screenings on a small scale within the organization's therapeutic youth homes in two Montana communities. Throughout the planning and implementation of this project, the initiation of standardized trauma and resiliency screening proved to be straightforwardly achieved. The organization's service director is an actively engaged leader and was selected as the organizational contact and champion for this reason. The staff participants were well-trained and trauma aware, with bachelor's to master's level education. They found the tools easy to use and generally appropriate for the population. The staff's feedback included that the screenings were a good fit for the patients, while they had suggestions for minor adjustments that could improve the screening process. The results of 39 trauma and 39 resiliency screening surveys completed, 100% of the population, reinforced the staff's feedback on ease of use and appropriate fit of the screening tools for the population.

CHAPTER FIVE

DISCUSSION

This quality-improvement project aimed to implement standardized trauma and resiliency screening as groundwork for the organization's long-term goal of screening patients for trauma and resilience prior to beginning treatment and nearing the end of engagement in residential program services. Over two decades of evidence back the concept that childhood adversity, or ACEs, impact lifelong wellness and mental health (Anda et al., 2006; Filetti et al., 1998; Ivey, 2020). Trauma's effect can be seen in environmental and behavioral influences, and alterations in a child's brain development and behavior (Kundakovic & Champagne, 2015; Ivey, 2020). The project goal aligned with outcome improvement set forth by the AAP (2010), AACAP (2019), and SAMHSA (2014), recommending standardized screening in various healthcare settings as necessary components of delivering quality patient care. Through the establishment of standardized patient screenings for trauma and resiliency, the hope is to clearly identify individual strengths and needs prior to the formulation of the patient-centered plan of care (Beers et al., 2019).

Relevant Findings

Just as routine screening is not occurring regularly in the primary care setting, it was also not occurring routinely in the foster care or residential youth home setting, as evidenced by the measure of 0 screenings found at baseline in the residential programs, prior to this project's initiation (Beers et al., 2017). The results from this quality-improvement project, establishing trauma and resiliency screenings within the youth therapeutic residential setting, indicate that the

implementation of trauma and resiliency screening within a community-based residential setting is not only achievable, but achievable within a short period of time. The project aimed for 80% of the residential youth population to be screened for trauma and resiliency by the end of the two-and-a-half-week PDSA cycle. The project results surpassed the goal. Instead of 80% of the population screened, the participating staff members completed screenings for 100% of the youth by the end of the two-and-a-half-week PDSA cycle. Most of the target population was composed of welfare-involved youth; these youth carry a greater risk for negative lifelong impacts due to compounding traumas of displacement from caregivers, from homes, and often due to experiencing multiple forms of childhood abuse (Hughes et al., 2017; Li, Chng, & Chu, 2019).

In contrast to the majority of research on ACEs, the project surveys were not completed by adults in retrospect, but by the children themselves (Filetti et al., 1998; Stevens et al., 2017). ACE information that is collected from an adult provides retrospective information about the adult's own childhood, or provides subjective information about their child's adverse experiences (Filetti et al., 1998; Anda et al., 2006; Stevens et al., 2017). Retrospective data collection occurs too late for early intervention and leaves room for bias. In this project, in addition to ACE screening, resiliency screening was performed to gain valuable information about the patient's existing strengths. ACE and resiliency screening information can be utilized to guide strength-based treatment (Sege & Browne, 2017). The patient screening serves as a roadmap for guidance of provision with the necessary supports in order to mediate known trauma to improve protective factors and individual resilience (Sege & Browne, 2017).

Challenges Encountered

While the project implementation went smoothly, modifications were required. These included technology and schedule-related adjustments. The short timeline between project formulation and implementation did not allow for the EHR to be ready to accommodate two new screening entries, so the plan to have the screening data entered directly into the patient's record in the EHR at the time of the screening did not happen. At the time of implementation, the screenings were collected via paper surveys. The initial PDSA meeting date was pushed back twice as we waited for EHR changes, which did not come through. The second reason was due to staff schedule conflicts. The lead clinician, the child's in-home therapist, performed the screenings utilizing paper surveys, which did not affect the outcome as seen in the result of 100% of patients having completed screening within the two-and-a-half-week PDSA cycle. A support staff for each group home collected the paper copies of the screenings and was designated to upload the screening results into the EHR once the forms become activated in the EHR. Nevertheless, staff was successful in obtaining completed ACE and CYRM-R screenings on 100% of patients during the two-and-a-half-week project cycle.

Project Facilitators

When planning for this project, the DNP student was familiar with two organizations that would likely be interested in adding the trauma and resiliency screenings into their routine practices. The current organization was selected as the ideal partner as it had more clients in residential services plus motivated staff. Despite having a shortened timeline for the project, the organization's support came from the top down, continuing with buy-in from program staff,

which improved the implementation success. The high success of this short-term quality-improvement project implied that the new screening process is achievable. The unfreezing step in Lewin's change theory happened quickly, with the transition phase being where the staff are currently. The final step of refreezing will likely occur after the program has incorporated the screening practice into routine intake operations and organizational practices (Wojciechowski et al., 2016). Lewin discussed leader recruitment, motivation, and establishing clear expectations; this project's success is greatly attributed to the service administrator, residential staff, and organizational leaders, all of whom supported the project goals (Wojciechowski et al., 2016).

Project Limitations

The original implementation date was delayed due to scheduling conflicts between staff and our project champion. The start date was pushed from late November to early December of 2020, with completion in December, 2020. The participants were quick to begin the screening process. The project champion set the expectations and communicated with staff throughout the 2.5 weeks. This communication was crucial to the project's success.

The initial plan included staff entering the screenings directly into the electronic patient health record, but due to struggles with formatting of one of the screenings, a paper format was utilized for both surveys. The alternative of using paper did not affect the implementation. The alternative paper surveys affected the ability to easily enter and extract results out of the EHR. The paper results were collected by the designated staff responsible for electronic entry of the screening results. Due to the EHR delay, the screenings were reported verbally during the follow-up zoom meeting after the two-and-a-half-week implementation.

Deming's PDSA cycle was followed as it allows for testing and documentation of the practice-change activity (IHI, n.d.). The short timeline of the project within the DNP program requirements created the need for a short PDSA cycle. The PDSA cycle was a total of two and a half weeks over the Christmas break. Only one PDSA was run due to the time and staffing constraints. A final limitation of this project was that the youth patients had varying lengths of stay, many of whom had been in the therapeutic home for lengthy periods of time, thus affecting who the patients identified as their primary caregiver when providing feedback in the surveys. Since the patient's trauma and resiliency screenings were performed with existing patients, the measure of resiliency may have been a reflection of already implemented treatment, as the first screening was not a pretreatment baseline. The limited time for the project implementation urged the use of the existing population instead of waiting for potential, but not guaranteed, new admissions to participate in the project. In future PDSA cycles, true pre- and post-assessments will reflect the patient's trauma and resiliency scores upon entry into the services, and scores nearing the end of treatment. The patient's baseline screening results will be used to inform the patient-centered treatment plan and will serve as a true baseline. The difference between pre- and post-treatment scores will theoretically reflect a change in resiliency over the course of engagement in therapeutic services.

For practicality, with the short project timeline, this current DNP project focused on the screening implementation process alone. During the project, the patient scores were collected by the organization and will be available for the organization to reference in the future. This means that the patients' screening scores (1) remained protected from personal information disclosure and (2) narrowed the project focus to a foundational step of simply implementing a new process

into the staff's workflow. The end goal is for the screenings to occur upon admission to the organization and again nearing the end of treatment for discharge planning.

Clinical Implications and Future Work

The organization's director of mental health residential programs is the lead contact for this project and indicates that, once both of the screening tools are functional within the EHR, this new screening process will be rolled out statewide within the organization's therapeutic residential homes (service director, personal communication, Jan. 20, 2021). Currently, within the organization's EHR, the ACE survey is functional with the CYRM-R in its final stages of testing. Once activated, the ACE and CYRM-R screenings will become part of routine staff processes. The organization's care plan development for youth in the residential group homes will incorporate the new screening process via staff administering the ACE and CYRM-R screenings with clients. The EHR will be used for data collection, documentation, tracking, and retrieval of the screening information. Standardization of trauma and resiliency screening will lay the groundwork for the organization's long-term goal of including a rescreening for resiliency as part of discharge planning and for guiding the patient's transitional plan of care when leaving the organization.

A recommendation for future research is to collect similar data from counterparts serving high-risk youth across the state of Montana. By sharing the trauma and resiliency screening process and the project results, practical applications of data from screening patients for ACEs and resiliency can be realized. At times, screenings do not translate into practice changes, but this project was able to assist the organization with establishing a process that is step 1 toward the goal of including trauma and resiliency screening in the routine process of formulating patient-

centered care. The project results and plan may be of benefit to other organizations that are interested in implementing similar screenings within their service lines. Data can be utilized to advocate for funding of continued training of organizational staff in the screening process. The data can also be used to advocate for increased funding for therapeutic youth programs' staff wages.

DNP Essentials

Throughout this project's focus on practice change with staff that work with youth in residential therapeutic services, DNP essentials I through VIII were touched upon. The following describes how the essentials were met.

Essential I: Scientific Underpinnings for Practice

Develop and evaluate new practice approaches based on nursing theories and theories from other disciplines. In this project, the DNP student was able to implement and evaluate the new practice of trauma and resiliency screening for patients within the organization's youth population.

Essential II: Organizational and Systems Leadership for Quality Improvement and Systems Thinking

Use advanced communication skills/processes to lead quality improvement and patient safety initiatives in health care systems. The DNP student was able to directly approach and collaborate with the organization's clinical director, residential service director, medical director, and CEO in order to plan for this quality-improvement project.

Essential III: Clinical Scholarship and Analytical Methods for Evidence-Based Practice

Use information technology and research methods appropriately to identify gaps in evidence for practice. The thorough literature searches performed by the DNP student and graduate-school librarian produced little to no evidence with similar populations regarding trauma and resiliency.

Essential IV: Information Systems/Technology and Patient Care Technology for the Improvement and Transformation of Health Care

Information systems/technology provide a mechanism to apply budget and productivity tools, practice information systems and decision supports, and web-based learning or intervention tools to support and improve patient care. Technology was utilized to identify and store the intervention tools that were utilized in this practice-improvement project.

Essential V: Health Care Policy for Advocacy in Health Care

Demonstrate leadership in the development and implementation of institutional, local, state, federal, and/or international health policy. Throughout the project course, the DNP communicated with local and state employees regarding the topics of youth in foster care, funding issues, and requirements set forth by Family First Legislation in 2018.

Essential VI: Interprofessional Collaboration for Improving Patient and Population Health Outcomes

Employ consultative and leadership skills with intraprofessional and interprofessional teams to create change in health care and complex healthcare delivery systems. The DNP student was able to participate in multiple interprofessional collaborative processes with colleagues within and outside of the current organization.

Essential VII: Clinical Prevention and Population Health for Improving the Nation's Health

Current concepts of public health, health promotion, evidence-based recommendations, determinants of health, environmental/occupational health, and cultural diversity and sensitivity guide the practice of DNP graduates. Synthesize concepts, including psychosocial dimensions and cultural diversity, related to clinical prevention and population health in developing, implementing, and evaluating interventions to address health promotion/disease prevention efforts, improve health status/access patterns, and/or address gaps in care of individuals, aggregates, or populations. The project's goal was to standardize trauma and resiliency screening for children. The hope is to establish routine screening and to expand awareness of issues in Montana's mental and behavioral system and the issue of large numbers of children involved in the state's welfare programs.

Essential VIII: Advanced Nursing Practice

Use conceptual and analytical skills in evaluating the links among practice, organizational, population, fiscal, and policy issues. This project allowed for linking practice improvement with improving the delivery of services that includes programmatic information and processes that will help caregivers and children understand treatment goals and continue with a focus on the patient's strengths.

Feasibility and Plan for Sustainability

The sustainability strategy was included in the planning process from early in the formulation of this project. When looking at implementing a new standardized process within the

residential programs, cost was considered. The financial investment of this project included administrative time from the EHR contact, the service director, the DNP student, and staff members when meeting online during the initial training/orientation to the screening tools, and then the follow-up meeting for completion of the PDSA cycle. This QI project relied upon already established patient time with staff, so no additional time was needed for implementation. Training on the survey tools was easily implemented through the online meeting with tools printed out in front of staff. Having the screenings added to the list of items completed upon initial patient intake will ensure that the process continues. This will allow the organization to collect what has the potential to be extremely valuable information that can be used in the future for fundraising asks, for awareness, and for reference in support of process improvement for behavior change and symptomatology. Although the child's ACE score will not change, data indicating a change, or a growth of resiliency and protective factors, can be used to demonstrate efficacy of the treatment. Additionally, with Family First Legislation that requires post-discharge tracking for patients, the organization can utilize these same screenings to collect what has the potential to be impactful data on resiliency of patients after discharge. The new tools are now embedded in the EHR system. The organization can open the screening use to other programs and service lines.

Summary

This project's goal to implement trauma and resiliency screenings with youth in the organization's therapeutic residential programs was successful. The data indicate that, through the two-and-a-half-week PDSA cycle, participating staff were able to collect complete screenings for 100% of the residents in two communities. The staff used already established

encounter time with the youth, so no extra funding or time was taken to perform the trauma and resiliency screenings. Per staff input, screening went smoothly and the tools were fitting for the population. One staff suggestion was to provide a visual number reference sheet for youth to use during the screening. Results indicated that the tools used to collect data measures through routine baseline trauma and repeat resiliency screenings will demonstrate change in the trauma exposure and resilience measures compared with discharge resilience and post-care resilience measures. This will also demonstrate efficacy of the intervention services the child received during participation in the organization's therapeutic services. Through the establishment of standardized trauma and resiliency screening, the intake process for clients entering the organization's services will be performed, with data gathering repeated prior to the patient's discharge-planning process. The trauma and resiliency information will provide a comparison of baseline trauma and resiliency measures upon program entry to data collection repeated later, during discharge. This newly established process is assisting with laying the groundwork for meeting post-care deliverables of the Family First Prevention Services Act (FFPSA) (2018) criteria.

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APPENDICES

APPENDIX A

IDENTIFICATION OF DOCTOR OF NURSING
PRACTICE PROJECT SITE REPRESENTATIVE

DNP Project 2020-2021
Appendix A

Identification of Doctor of Nursing Practice Project Site Representative

Student Name: Katherine Bugni

Project Site: AWARE Inc

Project Site Description: AWARE Intensive Level Therapeutic group homes

Project Site Address: Multiple sites in Anaconda and Great Falls. Project home site will be based out of Anaconda Shared Resource Center.

Project Site Representative: Jenn Wihlborg, LCSW Service Director

Proposed practice problem to be addressed: ACES and Prevention interventions for Foster Children placed in Intensive level homes.

Potential Intervention if known: ACES and HOPE resiliency evaluations for case by case training and intervention.

Print Name of Project Site Representative:

Jennifer Wihlborg LCSW

Signature of Project Site Representative:

Jennifer Wihlborg LCSW

APPENDIX B

CHILD AND YOUTH RESILIENCY MEASURE-REVISED (CYRM-R)



Child & Youth Resilience Measure-Revised (CYRM-R)

CYRM-R (child)						
Please choose one answer for each question. There are no right or wrong answers.						
		Not at all [1]	A little [2]	Somewhat [3]	Quite a bit [4]	A lot [5]
1	Do you share with people around you?					
2	Is doing well in school important to you?					
3	Do you know how to behave/act in different situations (such as school, home, holy places)?					
4	Do you feel that your parent(s)/caregiver(s) know where you are and what you are doing all of the time?					
5	Do you feel that your parent(s)/caregiver(s) know a lot about you (for example, what makes you happy, what makes you scared)?					
6	Is there enough to eat in your home when you are hungry?					
7	Do other children like to play with you?					
8	Do you talk to your family/caregiver(s) about how you feel (for example when you are hurt or feeling scared)?					
9	Do you have friends that care about you?					
10	Do you feel you fit in with other children?					
11	Do you think your family/caregiver(s) cares about you when times are hard (for example, if you are sick or have done something wrong)?					
12	Do you think your friends care about you when times are hard (for example if you are sick or have done something wrong)?					
13	Are you treated fairly?					
14	Do you have chances to show others that you are growing up and can do things by yourself?					
15	Do you feel safe when you are with your family/caregiver(s)?					
16	Do you have chances to learn things that will be useful when you are older (like cooking, working, and helping others)?					
17	Do you like the way your family/caregiver(s) celebrates things (like holidays or learning about your culture)?					

For administration instructions and scoring, please refer to the accompanying manual.

When using the measure, please cite the following:

Resilience Research Centre. (2018). CYRM and ARM user manual. Halifax, NS: Resilience Research Centre, Dalhousie University. Retrieved from <http://www.resilienceresearch.org/>

Jefferies, P., McGarrigle, L., & Ungar, M. (2018). The CYRM-R: a Rasch-validated revision of the Child and Youth Resilience Measure. *Journal of Evidence-Informed Social Work*, 1-24. <https://doi.org/10.1080/23761407.2018.1548403>

APPENDIX C

ADVERSE CHILDHOOD EXPERIENCES INVENTORY-REVISED

Adverse Childhood Experiences Inventory--Revised

Items

(all items preceded by "prior to your 18th birthday...")

1. Did a parent or other adult in the household **often or very often** ...
Swear at you, insult you, put you down, or humiliate you?
or
Act in a way that made you afraid that you might be physically hurt?
Yes No If yes enter 1 _____

2. Did a parent or other adult in the household **often or very often** ...
Push, grab, slap, or throw something at you?
or
Ever hit you so hard that you had marks or were injured?
Yes No If yes enter 1 _____

3. Did an adult or person at least 5 years older than you **ever**...
Touch or fondle you or have you touch their body in a sexual way?
or
Attempt or actually have oral, anal, or vaginal intercourse with you?
Yes No If yes enter 1 _____

4. Did you **often or very often** feel that ...
No one in your family loved you or thought you were important or special?
or
Your family didn't look out for each other, feel close to each other, or support each other?
Yes No If yes enter 1 _____

5. Did you **often or very often** feel that ...
You didn't have enough to eat, had to wear dirty clothes, and had no one to protect you?
or
Your parents were too drunk or high to take care of you or take you to the doctor if you needed it?
Yes No If yes enter 1 _____

6. Was a biological parent ever lost to you through divorce, abandonment, or other reason ?
Yes No If yes enter 1 _____

Adverse Childhood Experiences Inventory--Revised

Items

7. Was your mother or stepmother:

Often or very often pushed, grabbed, slapped, or had something thrown at her?

or

Sometimes, often, or very often kicked, bitten, hit with a fist, or hit with something hard?

or

Ever repeatedly hit over at least a few minutes or threatened with a gun or knife?

Yes No

If yes enter 1 _____

8. Did you live with anyone who was a problem drinker or alcoholic, or who used street drugs?

Yes No

If yes enter 1 _____

9. Was a household member depressed or mentally ill, or did a household member attempt suicide?

Yes No

If yes enter 1 _____

10. Did a household member go to prison?

Yes No

If yes enter 1 _____

11. Did other kids, including brothers or sisters, often or very often hit you, threaten you, pick on you or insult you?

Yes No

If yes enter 1 _____

12. Did you often or very often feel lonely, rejected or that nobody liked you?

Yes No

If yes enter 1 _____

13. Did you live for 2 or more years in a neighborhood that was dangerous, or where you saw people being assaulted?

Yes No

If yes enter 1 _____

14. Was there a period of 2 or more years when your family was very poor or on public assistance?

Yes No

If yes enter 1 _____

Now add up your "Yes" answers: _____ **This is your ACE Score**

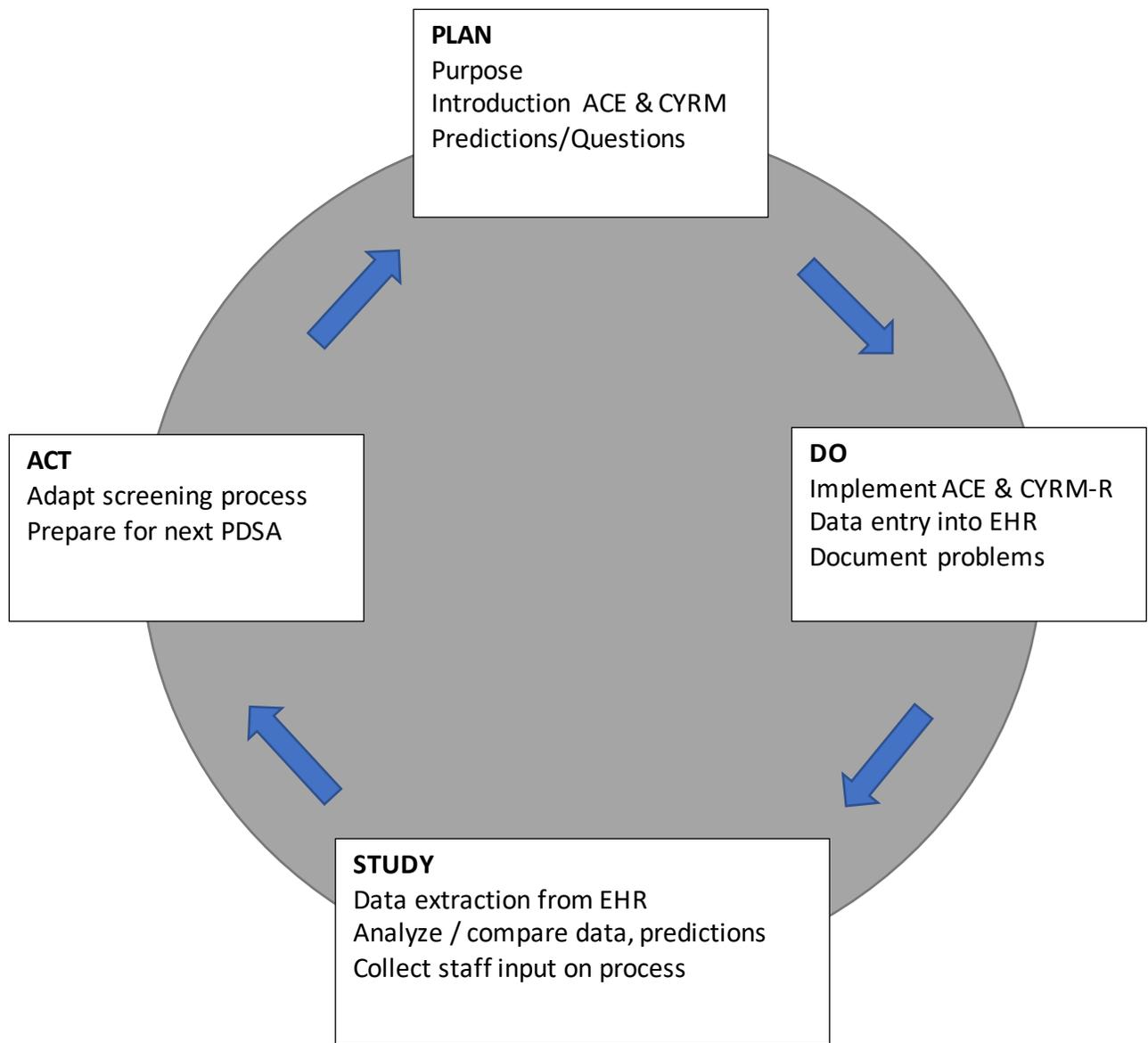
APPENDIX D

PLAN, DO, STUDY, ACT (PDSA)

PDSA

Trauma and Resiliency screening
Youth Residential Setting
K Bugni 2020/2021

Participants: Staff working with youth
Measure: Completed screenings pre- and post-implementation
Goal: Screenings completed during routine visits
Relevance: Standardized trauma and resiliency measures
Timeline: 2.5-week PDSA cycle



APPENDIX E

STRENGTHS, WEAKNESSES, OPPORTUNITIES, AND THREATS (SWOT)

Strengths	Weaknesses	Opportunities	Threats
<ul style="list-style-type: none"> • Skilled, competent staff • Quality environment for marginalized clients • Internal continuity of care/client-centered • Serve intensive needs clients • IT equipment, well-kept facilities vehicles, own school building, above market wages, benefit package 	<ul style="list-style-type: none"> • Staff vacancies • No financial reserve or foundation • Geographical diversity/across the state • Communication • Historically low emphasis on marketing and brand awareness 	<ul style="list-style-type: none"> • Referrals exceed capacity • Services close to home, reduce high cost acute care, reduce transition trauma by sticking with clients • Growth in community treatment (school-based, prescribers, therapy) • Funding for foster care supportive services • Substance use treatment 	<ul style="list-style-type: none"> • Facility-based care receiving better payment rates to deliver similar services • Insufficient funding • Higher acuity care is financially incentivized • Funding changes/rapidly changing regulations (admin rules) • Mental health stigma • Covid-19 impact • Serving very high needs clients

APPENDIX F

INSTITUTIONAL REVIEW BOARD EXEMPTION LETTER



INSTITUTIONAL REVIEW BOARD
For the Protection of Human Subjects
FWA 00000165

2155 Analysis Drive
 c/o Microbiology & Immunology
 Montana State University
 Bozeman, MT 59718
 Telephone: 406-994-4706
 FAX: 406-994-4303
 E-mail: cherylj@montana.edu

Chair: Mark Quinn
 406-994-4707
 mquinn@montana.edu
Administrator:
 Cheryl Johnson
 406-994-4706
 cherylj@montana.edu

MEMORANDUM

TO: Katherine Bugni and Sandra Benavides-Vaello

FROM: Mark Quinn *Mark Quinn CJ*
 Chair, Institutional Review Board for the Protection of Human Subjects

DATE: November 20, 2020

RE: *"Implementation of Standardized Trauma and Resiliency Screening in a Youth Therapeutic Residential Setting: A Quality Improvement Initiative" [KB112020-EX]*

The above research, described in your submission of November 19, 2020, is exempt from the requirement of review by the Institutional Review Board in accordance with the Code of Federal regulations, Part 46, section 101. The specific paragraph which applies to your research is:

- (b) (1) Research conducted in established or commonly accepted educational settings, involving normal educational practices such as (i) research on regular and special education instructional strategies, or (ii) research on the effectiveness of or the comparison among instructional techniques, curricula, or classroom management methods.
- (b) (2) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless: (i) information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; and (ii) any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability, or be damaging to the subjects' financial standing, employability, or reputation; and (iii) the information obtained is recorded by the investigator in such a manner that the identity of the human subjects can readily be ascertained, directly or through identifiers linked to the subjects, and an IRB conducts a limited IRB review to make the determination required by section 16.111(a)(7).
- (b) (3) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior that is not exempt under paragraph (b)(2) of this section, if: (i) the human subjects are elected or appointed public officials or candidates for public office; or (ii) federal statute(s) without exception that the confidentiality of the personally identifiable information will be maintained throughout the research and thereafter.
- (b) (4) Research involving the collection or study of existing data, documents, records, pathological specimens, or diagnostic specimens, if these sources are publicly available, or if the information is recorded by the investigator in such a manner that the subjects cannot be identified, directly or through identifiers linked to the subjects.
- (b) (5) Research and demonstration projects, which are conducted by or subject to the approval of department or agency heads, and which are designed to study, evaluate, or otherwise examine: (i) public benefit or service programs; (ii) procedures for obtaining benefits or services under those programs; (iii) possible changes in or alternatives to those programs or procedures; or (iv) possible changes in methods or levels of payment for benefits or services under those programs.
- (b) (6) Taste and food quality evaluation and consumer acceptance studies. (i) if wholesome foods without additives are consumed, or (ii) if a food is consumed that contains a food ingredient at or below the level and for a use found to be safe, or agricultural chemical or environmental contaminant at or below the level found to be safe, by the FDA, or approved by the EPA, or the Food Safety and Inspection Service of the USDA.

Although review by the Institutional Review Board is not required for the above research, the Committee will be glad to review it. If you wish a review and committee approval, please submit 3 copies of the usual application form and it will be processed by expedited review.