Improvement in Primary Care Identification of Trauma Symptoms of Foster Care Children

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Improvement in Primary Care Identification of Trauma Symptoms of Foster Care Children

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A Dissertation Submitted to
The Graduate School at the University of Missouri-St. Louis
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Doctor of Nursing Practice
with an emphasis in Pediatric Nurse Practitioner

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2020

Advisory Committee

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Chairperson

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Abstract

Introduction: Exposure to adverse childhood events (ACEs) is common in foster children. Primary care providers are ideally positioned to advocate for foster care children through early identification and treatment of trauma-related symptoms and diagnoses during routine well-child assessments.

Purpose: This quality improvement project sought to institute a standardized trauma assessment instrument, the Childhood Behavioral Checklist (CBCL), to determine if there was an increase in the identification of trauma-related symptoms and diagnoses along with an increase in the rate of referral to mental health care (MHC).

Method: This quality improvement project used a descriptive, observational design to complete retrospective and prospective record reviews to measure the number of trauma-related symptoms, diagnoses, and the rate of referral to mental health care before and after implementation of the tool.

Results: The average number of trauma-related symptoms identified was higher with the institution of the CBCL (32.2 vs. 3.67 number of symptoms) with a significant difference in the mean rank and distribution of symptoms. There was no change in the number of identified diagnoses or rates of referral to MHC.

Implications: The use of a standardized trauma assessment tool increases the identification of trauma-related symptoms in foster care children in the primary care setting. Subsequently, use of the tool may improve documentation of trauma-related symptoms and improve reimbursement for trauma-related diagnoses. More detailed medical records for foster children may also offer greater continuity of care as they are transferred from home to home and provider to provider on interdisciplinary teams.
Improvement in Primary Care Identification of Trauma Symptoms of Children in Foster Care

Introduction and Background

The foster care system was developed to ensure the protection of and increase the well-being of children who must be removed from their current family. Data trends in foster care entry have shown a generalized increase in the need for the foster care system within our communities (Children’s Bureau, 2018). This need coupled with the growing knowledge of the impacts of traumatic events in children’s lives has led to the adoption of policies such as the Child and Family Services Improvement Act of 2011 that requires states to monitor emotional trauma and provide care to ensure the developmental health of children in foster care (American Academy of Pediatrics, 2015). However, currently, there is no mandated screening for emotional trauma in the primary care setting for the foster care population. Due to current recommendations, an understanding of the effects of childhood exposure to traumatic events, and the current lack of processes for emotional trauma assessment in the primary care setting primary care providers (PCPs) must become familiar with screening methods to better identify and care for foster care children exposed to traumatic childhood experiences (Schilling, Fortin, & Forkey, 2015).

Adverse childhood experiences (ACEs) are derived from a multitude of emotional, mental, and physical traumatic events experienced during childhood. ACEs include emotional, physical, and sexual abuse and neglect, experiences of intimate partner violence, substance abuse in the home, mental illness in the home, separation from the home, and a first-degree relative who has been incarcerated (American Academy of Pediatrics, 2014a; Centers for Disease Control and Prevention, 2019b). The Adverse Childhood Experience study was the first study to reveal a statistically
significant relationship between the number of ACEs and an increase in risk factors associated with the leading causes of death in adults (Felitti, et al, 1998). It is important to note that the most commonly identified negative health outcomes are experienced by children that do not have a caring adult available to diminish the effects of multiple ACEs (American Academy of Pediatrics, 2015).

There are nearly 700,000 active foster care cases in the United States (Children’s Bureau, 2018) with over 13,000 of those cases occurring in Missouri (Missouri Department of Social Services, 2018). The southeast region of Missouri has one of the highest populations of foster care children with over 1700 children entering the foster care system in 2018 (Missouri Department of Social Services, 2018). This includes foster care children in family placement, congregate care, and kinship placement. Southeast Missouri is considered rural with all included counties rated as health professional shortage areas (HPSA). Many of these counties have HPSA scores of 17-21 with 26 being the highest level of need (Health Resources & Services Administration, n.d.). Thus, the number of foster care children combined with an HPSA suggests an imperative need for PCPs to be well educated on evidence-based practices for the most effective and efficient care of children in foster care (Children’s Bureau, 2018).

Providers in southeast Missouri are challenged to provide quality care for all populations including vulnerable populations, such as the foster care children who reside in the region (Health Resources & Services Administration, n.d.). Foster care children, especially those living in HPSAs, require evidence-based care to lower the risk for poor health outcomes. The purpose of this quality improvement project was to initiate the use of a standardized evidence-based ACEs assessment tool by PCPs in a rural southeast
Missouri health clinic. The aim is earlier initiation of trauma-informed care for these children. Outcome measures include 1) identification of associated trauma symptoms, 2) diagnosis of trauma exposure, and 3) referral to mental health care professionals for all screened foster care children. The following PICO question guided the project and literature review, “In foster care children evaluated in the primary care setting, how does the use of a validated assessment tool impact the diagnoses of symptoms associated with trauma, diagnoses of trauma exposure and referral rates to mental health care (MHC) compared to current non-standardized practices?”

**Review of Literature**

To better understand the scope of the problem, a thorough literature search and review were completed. Electronic databases used in the literature search included PubMed, EBSCO, CINHAL, and MEDLINE. The initial search included broad terms for the inclusivity of all possible literature. Keywords to direct the literature review were “adverse childhood experiences,” “ACE,” “ACE assessment,” “trauma assessment,” “primary care,” “primary care provider,” “primary healthcare,” “foster care,” and “foster children” revealed 164 articles after duplicates were removed. Once the initial review was completed exclusion criteria of less than 20 years old and only peer-reviewed articles were added, resulting in 13 included articles. Individual article review eliminated articles that focused on adult assessment or adult outcomes-based criteria. Ten articles remained for the development of a review of the literature. One additional article was added to the literature review from the American Academy of Pediatrics policy statement on the effects of toxic stress.
Foster care children face an elevated risk of ACEs due to the social context of their home-life which often includes abuse, neglect, or the death of their guardian which leads to removal from the home. 75.5% of foster care children are estimated to have been exposed to ACEs with the average number being more than two ACEs per child. In comparison children in foster care have higher levels of ACEs than children in other disadvantaged situations including those who experience low socioeconomic status, racial discrimination, and single-parent homes (Turney & Wildeman, 2017). Due to the detrimental effects of ACEs on the health of children, emotional trauma assessments are recommended for every child entering or re-entering the foster care system (American Academy of Pediatrics, 2014b; American Academy of Pediatrics, 2017).

A consensus of the literature focuses on the need for ACEs to be addressed in the primary care setting. The identification of symptoms and subsequent diagnoses are necessary to decrease the short and long-term effects of emotional trauma on a child’s future health and development (Bruskas, 2010; Centers for Disease Control and Prevention, 2019b; Schilling, Fortin & Forkey, 2015). To assist a child in more normal development and mental wellness after experiencing ACEs, an assessment must be performed to provide early treatment and limit the effects of exposure (Bruskas, 2010).

Present policies by the CWLA and AAP require that all court-appointed social service care plans for children in foster care include an initial health physical within 72 hours of placement, a one-month follow-up with a PCP, and bi-annual physical exams (Committee on Early Childhood Adoption and Dependent Care & AAP, 2002; Schilling, Fortin & Forkey, 2015). Currently, the recommendations by the AAP are for all children to be regularly screened for ACEs by a pediatric PCP (American Academy of Pediatrics,
IMPROVEMENT IN PRIMARY CARE IDENTIFICATION OF TRAUMA SYMPTOMS OF FOSTER CARE CHILDREN

2014). However, despite the literature supporting PCP’s role in the assessment, diagnosis, and treatment of trauma exposure, the existing policies governing trauma assessments of foster care children do not require the PCP to complete a trauma assessment. Thus, the required physical assessment is often the only documentation regularly completed by the PCPs.

The symptoms of ACEs are wide and varied. The most notable concerns include alterations in impulse control, emotional dysregulation, development of poor or irrational thought processes, and lower levels of cognition throughout the lifespan (CDC, 2019a). The mental health effects associated with these neurological changes may lead to increased risk-taking behaviors, higher levels of anxiety, depression, drug or alcohol abuse, suicide, and educational deficiencies (American Academy of Pediatrics, 2015). The associated physical health manifestations of emotional trauma include but are not limited to increased rates of sexually transmitted infections, unintended pregnancies, cancer, burns, and fractures (CDC, 2019a; Felitti, et al, 1998). However, symptoms such as chronically elevated blood pressure, feeding difficulties, hearing or vision problems, and even reactive asthma can be related to ACEs. Other developmental delays such as fine and gross motor skills, communication delays, or bladder control behaviors have more recently been connected to continued exposure to trauma (Burns, et.al. 2017; Turney & Wildeman, 2016).

The use of evidence-based standardized trauma assessment instruments increases the identification of trauma symptoms in children (Forkey, Morgan, Schwartz & Sagor, 2016). Several trauma-assessment tools have shown validity in providing more accurate identification and diagnosis of ACEs (Atazadeh, Mahmoodi & Shaghaghi, 2019;
Forkey, Morgan, Schwartz & Sagor, 2016). Many of these tools are documented to be utilized in children that have experienced natural disasters, immigration, caregiver separation, and when experiencing a major loss (Atazadeh, Mahmoodi & Shaghaghi, 2019; Flynn, et.al. 2015). Tools such as the Strengths and Difficulties Questionnaire and the Trauma Symptom Checklist have both been identified as valid in assessing for symptoms of ACEs. In reviewing these instruments, it is very important to note few somatic symptoms are assessed during the evaluation of the child’s behaviors (Forkey, Morgan, Schwartz & Sagor, 2016; Jee, et al., 2011). The Childhood Behavior Checklist (CBCL) is a trauma assessment that identifies trauma symptoms in eight domains of behavior including anxiety, depression, withdrawn behaviors, somatic complaints, social difficulties, erroneous thought processes, attention problems, aggression, and deviant behaviors. The CBCL assessment is valid for children and adolescents 6 to 18 years old (Price, Higa-McMillan & Frueh, 2013). The CBCL has been used to accurately relate ACEs sequelae to both direct and indirect forms of emotional trauma providing an introduction to the discussion of trauma with the child and caregiver. The checklist is considered to be significant in predicting trauma exposure even when controlling for temperament, sociodemographic, sex, and age (Price, Higa-McMillan & Frueh, 2013). These findings suggest this may be an excellent instrument to use in a primary care setting with foster children. Overall, the implementation of a screening tool increases the rate of symptom assessment related to ACEs in the primary care setting and has also been shown to improve PCP’s perceived competency and knowledge of ACEs (Flynn, et. al. 2015). PCPs are more likely to evaluate trauma symptoms and management if exposed
to increased education and the use of a validated emotional trauma assessment tool (Koita, et al., 2018).

Current data show a significant increase in the risk of trauma in a foster child’s life and the subsequent negative impact on health outcomes related to ACEs (Turney & Wildeman, 2017). Further evidence reveals that trauma is expressed in multiple different domains, not only behavioral or emotional (CDC, 2019). As mental health services are increasingly limited in rural areas, PCPs in these areas must identify children who require additional mental health care. In an outpatient setting, pediatric PCPs can screen for behavioral, emotional, developmental, and somatic symptoms of ACEs. There is a dearth of research on PCPs having a primary role in the care and well-being of children in foster care. However, pediatric PCPs are in a fundamental position to take an active role in the screening and treatment of children in foster care who have been exposed to trauma. As a mandated part of the interdisciplinary team and utilizing trauma-informed care, pediatric PCPs can advocate for the health and welfare of foster children (Schilling, Fortin & Forkey, 2015). Further research in this area is imperative to better understand the interdisciplinary role of PCPs in the assessment, diagnosis, and treatment of trauma-exposed foster children in rural communities.

The Plan-Do-Study-Act (PDSA) model for quality improvement is utilized by the Institute for Healthcare Improvement and the Agency for Healthcare Research and Quality and allows a project to be placed into practice in a small context with continuous evaluation of the processes and outcomes (Ogrinc, 2018). The cycle of the PDSA creates a continuous loop of implementation and evaluation so that the data gathered is continuously assessed for possible barriers to implementation, effects of the project on
subjects and clinicians, and to determine the effectiveness of the intervention. This model will guide the proposed quality improvement project.

Methods

Design

The project was a quality improvement initiative with a descriptive, observational design using retrospective and prospective record reviews completed pre and post-implementation of a standardized trauma assessment tool. The initial chart reviews were completed on all foster care children ages 6-18 years seen at the practice from September 1st, 2019 through December 30th, 2019 for non-acute examinations. The providers in the clinic were given instruction about symptomology of ACEs and how to identify, recognize, treat, and refer for specialized care (Appendix A). Finally, the assessment tools completed between January 6th, 2020 and, July 31st, 2020 were reviewed and documented.

Setting

The project was implemented at a pediatric primary practice located in a rural Missouri community with two associated locations in two separate counties. The clinics offer pediatric and other specialties including mental health care. Data was collected at both locations. The population of County 1 is approximately 24,943 with 22.8% of the population being under 18 years old. County 2 has an approximate population of 66,692 with 21.1% of the population under the age of 18. Rates of poverty in both counties are 22.8% in County 1 and 17.7% of persons in County 2 (United States Census, 2019).

Sample
A convenience sample of foster care children, ages 6-18 years, assessed at a rural primary care practice, in southeast Missouri was selected. The children included were at the clinic for a comprehensive visit or well-child examination. Problem-focused or acute illness visits were excluded due to the limitations of the assessment.

**Data Collection/Analysis.**

Prior to data collection approval for the project was obtained through a Capstone Committee, the Institutional Review Board (IRB) of the University of Missouri-St. Louis, the Department of Health and Human Services, and the board of directors of the pediatric clinic. The population of focus is a highly vulnerable population and so great care was taken to ensure proper protection and confidentiality of all subjects. No direct contact was made with the sample population and all data was de-identified, coded, and stored in a password protected computer owned by the project coordinator.

The symptoms and diagnoses associated with positive findings of possible trauma are listed in Appendix B. These symptoms are consistent with the Childhood Behavior Checklist (CBCL), the trauma assessment tool (Appendix C) which was implemented during the second part of this project. The CBCL was completed in the waiting area or via a mailed letter before a child’s appointment including telehealth visits. During the physical assessment, the PCP utilized the CBCL as a guide to further assess or inquire about areas of concern (Achenbach & Ruffle, 2000). Numerical scoring of the CBCL is separated by gender and age groups 6-10 years and 11-18 years thus creating norms for these distinct groups. Scores at or above the 70th percentile are clinically diagnostic of trauma diagnoses. Any caregiver or child answering a 2 on question # 61 required
immediate assessment by the PCP. If under question # 18 or 100 a child or caregiver mentions homicidal or suicidal intentions the facility’s policies were followed. Data was then evaluated using descriptive statistics with a mean and frequency documented on gender and age. Frequency of trauma-related symptoms was also identified between the pre and post-assessment tool implementation populations. Finally, a two-tailed Mann-Whitney U test was best utilized due to the data not being normally distributed.

**Results**

All of the children included in the data set were part of the foster care system, residing outside of their biological parent’s home, considered rural residents, and were Medicaid recipients. Most children did not include ethnicity in their medical chart or when completing the CBCL, this may be due to the unknown ethnicity of one or both biological parents. The sample size was 52, the most frequently observed gender was female \( n = 32, 63\% \), and the most frequently observed categories of age were 12 and 6 years, each with an observed frequency of 6 (12%) (Figure 1& 2).

Further, a descriptive analysis provided the top identified symptoms for both pre and post-implementation assessments (Figure 3). The most common symptom displayed in the pre-assessment tool implementation group was “concentration issues” with 12 children identified which was closely followed by “hyperactivity” with 10 children identified. This differed from the post-assessment tool implementation group with the most commonly identified symptom being “argumentative” with 12 children identified followed by “concentration issues” with 11 children identified. Overall, after the
implementation of the CBCL providers were able to recognize possible trauma-related symptoms more frequently and identified less common symptoms.

A descriptive summary of the data was calculated based on the number of trauma symptoms identified and the number of trauma diagnoses between the pre and post-assessment tool implementation. Before the use of the CBCL, the number of observed trauma symptoms averaged 3.67 and the number of trauma diagnoses had an average of 1.06. Employing the CBCL an average of 32.20 trauma symptoms and an average of 1.73 trauma diagnoses were identified (Figure 4).

A two-tailed Mann-Whitney U test was used to analyze the data for significant differences in the number of trauma symptoms and trauma diagnoses before and after the tool was implemented. The Mann-Whitney test was utilized due to the data not being normally distributed which was determined by the Shapiro-Wilk test. The result of the two-tailed Mann-Whitney U test of trauma symptoms was significant based on an alpha value of 0.05, $U = 66$, $z = -4.25$, $p < .001$. The mean rank for pre-implementation was 20.33 and the mean rank for post-implementation was 39.60. The median value of identified trauma symptoms during the pre-implementation period ($Mdn = 2.00$) was significantly lower than the median value post-implementation ($Mdn = 23.00$). This illustrates that the distribution of the number of trauma-related symptoms before the use of the CBCL was significantly different from the distribution of the number of trauma-related symptoms when using the CBCL.

The result of the two-tailed Mann-Whitney U test of trauma diagnoses was not significant based on an alpha value of 0.05, $U = 228$, $z = -0.91$, $p = .363$. The mean rank for the pre-implementation group was 24.83 and the mean rank for the post-
implementation group was 28.80. This suggests that the distribution of the number of trauma-related diagnoses before the CBCL ($Mdn = 1.00$) was not significantly different from the distribution of the number of trauma-related diagnoses after the use of the CBCL ($Mdn = 1.00$) group (Figure 5).

Of note, all children in the study were referred to counseling, regardless of the number of trauma-related symptoms and diagnoses. Referrals included both in clinic and external sources of care provided by mental health professionals. Subsequently, there appears to be no change in the referral rate to MHC before and after the implementation of the project. However, after implementation of the CBCL and an increase in the identification of possible trauma-related symptoms, there was a single case identified that required screening and education for sexually transmitted diseases and one additional case of a child having an identified history of suicidal ideations. These cases may not have been identified without the tool.

**Discussion**

Timely identification of symptoms and diagnoses related to ACEs decreases the short and long-term sequelae on a child’s health and development (Centers for Disease Control and Prevention, 2019b; Schilling, Fortin & Forkey, 2015). Evidence suggests the use of a standardized trauma assessment tool increases the identification of trauma-related symptoms in children and enhances provider knowledge and management of trauma-related diagnoses (Flynn et al., 2015; Forkey, Morgan, Schwartz & Sagor, 2016; Koita et al., 2018). Indeed, this project revealed that the implementation of the CBCL increased the identification of trauma-related symptoms in the foster care population.
assessed. This finding is statistically significant and supports the continued use of the tool to better identify children exposed to trauma.

Findings also showed that there was an increase in the frequency of less common symptoms identified with the CBCL. One benefit of the tool appears to be that usage allows parent/guardians the time to accurately describe the child’s symptomatology through an easy to read and understandable questionnaire. This subsequently helped providers not only identify symptoms and better document the symptoms in the children’s medical records but the tool increased awareness of providers to the existence of less common symptoms. Thus, this project supports earlier findings that the CBCL allows providers an additional and validated approach to evaluate trauma-related symptoms that may be overlooked during a routine well-child exam (Koita, et al., 2018).

Additional findings revealed that there was no statistically significant difference in the number of trauma-related diagnoses between the pre and post-assessment tool implementation groups. Children in both groups had similar numbers of trauma-related diagnoses documented in the medical record. What did change were the supporting details within the medical record. Before implementation of the assessment tool, children had diagnoses related to trauma but documentation of the corresponding symptoms was largely missing from the medical record. After implementing the tool, provider documentation of trauma-related symptoms increased, strengthening the record which may allow for future tracking of the symptoms and improve medical billing. Current Medicaid guidelines encourage more complete documentation which leads to increased levels of reimbursement for providers (Yeatts, Devdutta, & Sangvai, 2016). Most importantly, the use of the tool may trigger providers to document more thoroughly and
become increasingly more aware of the host of symptoms children may display after experiencing trauma. This may lead to better care after foster children experience an ACE.

Referral rates for specialty mental health services remained unchanged in this project. This is likely because the clinic has a standing protocol to refer all foster children for MHC regardless of specific symptoms or diagnoses. While the rates of referral did not increase, the medical records that follow the children contained more thorough documentation of trauma-related symptoms. This may allow mental health providers to have a clearer picture of a child’s history and behaviors linked to possible trauma-exposure. Ultimately, the findings of this project reveal that the use of a standardized trauma-assessment tool in primary care leads to better identification and documentation of symptoms.

**Implications**

The results of this project indicate a significant increase in the identification of the number of trauma-related symptoms which support the trauma-related diagnoses and treatment plans when providers utilize the CBCL. Therefore, a recommendation of this study would be the continued use of the CBCL or use of another validated trauma-assessment tool annually on all foster children that receive primary care at the clinic. Additionally, increasing the number of children reached by adding an assessment tool for children ages birth to six years would provide opportunities for earlier intervention. Expansion of use of the CBCL to all Missouri PCPSs who care for foster children will further increase trauma-informed care given to the children and families across the state.
Currently the state of Missouri has a policy that foster children must be assessed and supported during their time in placement. The system used is called the “Signs of Safety Assessment” and it allows caseworkers an ongoing framework for assessing danger and risks to the children and family (Missouri Department of Social Services, 2019). If a support team member or the child’s resource provider requests further assessment to determine behavioral or emotional needs, an elevated needs assessment is completed and the child is placed into the Foster Youth with Elevated Needs program (Missouri Secretary of State: Code of State Regulations, 2020). Introducing a state-wide policy that requires medical trauma-related assessments to be completed in the primary care setting for children in foster care would offer additional identification of trauma-related symptoms resulting in better support of trauma-related diagnoses and treatments. This could offer greater support to the current system leading to an improvement in the quality of care for children in foster care through a more thorough assessment and documentation. Consequently, the process will increase the identification of the child’s full healthcare needs.

Limitations to this project include a small sample size and restrictions related to the COVID-19 pandemic during the application of the CBCL. Future research should focus on extending this project to a larger scale population, including the addition of younger children and sampling across multiple clinics in the state of Missouri. For children identified with exposure to ACEs, future evaluation should determine what current resources are available for foster families seen in primary care settings and address the deficiencies. Increased identification and documentation of the effects of trauma on individual foster care children along with a greater understanding of the
available resources and required needs are essential to provide better health outcomes for the foster care population.

**Conclusion**

In summary, this project showed a statistically significant increase in the identification of trauma-related symptoms in foster care children in a rural Missouri health clinic with the institution of the CBCL tool. The increased identification of symptoms provided better support for documented trauma-related diagnoses and treatment plans. Further, the improved identification and documentation of trauma-related symptoms will allow for more detailed medical records for re-homed children, improved reimbursement rates to PCPs by Medicaid, and overall better health outcomes for children and families in foster care. Ideally, all foster care children should be assessed for ACEs in the primary care setting with continued trauma-informed education and guidance given to all children and families within the foster care system. Ultimately, children identified to have trauma-related symptoms and diagnoses should be provided with the most appropriate and beneficial MHC services to reduce the current and future effects of trauma exposure.
References


improve the primary care identification of trauma symptoms of foster care children.


Appendix A

Education for Providers Summary

Summary of the CDC’s information on ACE.

- ACE are traumatic events that can be emotionally painful and distressing.
- Childhood trauma has life-long consequences: health, behavior, and socioeconomic

- How do PCPs help children who have experienced ACEs?
  - Primary prevention: family support (economically, socially, education)
  - Encourage risk reduction through medical support and child
  - Teach children how to manage emotions, make good behavior choices, and teach parenting skills
  - Intervene as early as possible to lessen the long-term effects (Centers for Disease Control and Prevention, 2019b).

- The significance of trauma in foster care children.

- Foster care numbers in the area of care
  - 15,000 cases of foster care in Missouri
  - Southeast region of MO has the highest level of children in foster care with approximately 17,000 cases of placement

- Childhood behavioral checklist
  - Tool used to ID ACE sequelae to both direct and indirect forms of trauma
  - Trauma symptoms in behavioral, emotional, and somatic domains
  - It is considered to be both significant in predicting trauma exposure even when controlling for temperament, sociodemographic, sex, and age
  - Takes approximately 15 minutes to be completed prior to the appointment

- Measurements
  - Trauma-associated symptoms, trauma-related diagnosis, and referrals to mental health
  - A change in the identification and treatment will then be analyzed to control for demographics for statistical importance
Appendix B

Possible Trauma Associated Diagnosis and ICD 10 Codes

**Mood Disorders**
- Adjustment Disorder, Unspecified F43.20
- Alcohol Abuse F10.1
- Anxiety Disorder, Unspecified F41.9
- Attention and Concentration Deficit R41.840
- Avoidant Personality Disorder F60.6
- Cannabis Use, Unspecified, Uncomplicated F12.99
- Child Neglect or Abandonment, Suspected T76.02
- Child Physical Abuse, Suspected T76.12
- Child Sexual Abuse, Suspected T76.22
- Childhood Emotional Disorder, Unspecified F93.9
- Conduct Disorder, Unspecified F91.9
- Delayed Milestones in Childhood R62.0
- Developmental Disorder of Scholastic Skills, Unspecified F81.9
- Developmental Disorder of Speech and Language, Unspecified F80.9
- Eating Disorder, Unspecified F50.9
- Generalized Anxiety Disorder F41.1
- Homicidal and Suicidal Ideations R45.85
- Irritability and Anger R45.4
- Mild Intellectual Disabilities F70
- Nightmare Disorder F51.5
- Opioid use, unspecified, uncomplicated F11.20
- Panic Disorder without agoraphobia F41.0
- Personal History of Physical Injury and Trauma Z87.82
- Post-traumatic Stress Disorder F43.1
- Problems Related to Education and Literacy, Unspecified Z55.9
- Reaction to Severe Stress, and Adjustment Disorder F43
- Suicide Attempt T14.91
- Tobacco Use Z72.0

**Physiological Symptom**
- Abdominal and Pelvic Pain R10
- Abnormal Weight Loss F63.4
- Abnormal Weight Gain R63.5
- Acute Vaginitis N76.0
- Anorexia R63.0
- Bulimia Nervosa F50.2
- Chronic Fatigue, Unspecified R53.82
- Contact with Exposure to Infection with Sexual Mode of Transmission Z20.2
- Dysmenorrhea N94.6
- Eating Disorder, Unspecified F50.9
- Elevated Blood Pressure Reading, w/o Diagnosis of HTN R03.0
- Encopresis F98
- Enuresis Not Due To a Substance or Known Physiological Condition F98.0
- Failure to Thrive (Child) F80.1
- Feeding Difficulties R63.3
- Female Pelvic Inflammatory Disease, Unspecified N73.9
- Generalized Abdominal Pain R10.84
- Headache R51
- Insomnia G47.0
- Nocturnal Enuresis N39.44
- Nutritional Anemia, Unspecified D53.9
- Nutritional Deficiency, Unspecified E63.9
- Pain, Unspecified R52
- Palpitations R00.2
- Shortness of Breath R06.02
- Underweight R63.6

(Richardson, 2020; Typhon Group LLC, 2019)
History of Present Illness and Review of Symptoms
Trauma Related Symptoms

<table>
<thead>
<tr>
<th>Neurological Complaints</th>
<th>Physiological Complaints</th>
<th>Behavior Complaints</th>
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</thead>
<tbody>
<tr>
<td>• Headaches</td>
<td>• Constipation/Diarrhea/Poor toileting behaviors</td>
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<tr>
<td>• Dizzy/lightheadedness</td>
<td>• Nausea/Vomiting/Stomachaches</td>
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<td>• Nightmares</td>
<td>• Over/underweight</td>
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<td>• Excessive crying for age/crying out in sleep</td>
<td>• Eating difficulties (too much/too little)</td>
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<td>• Tired/fatigued</td>
<td>• Body aches</td>
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<td>• Insomnia</td>
<td>• Rashes</td>
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<td>• Vision changes</td>
<td>• Elevated Blood pressure</td>
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<td>• Odd muscle movements</td>
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<td>• Obsessive Thoughts</td>
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<td>• Concentration Problems</td>
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<td>• Cruel/ bullying</td>
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<td>• Lying Cheating</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Attention seeking</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Inappropriate sexualized behavior</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Hyperactivity</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Inactivity</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Self harm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Alcohol/drug use</td>
</tr>
</tbody>
</table>
### Child Behavior Checklist for Ages 6-18

**Full Name**:  
**Last**

**Gender**  
- [ ] Boy  
- [ ] Girl

**Child's Age**  
**Ethnic Group**  
**Race**

**Father's**  
**Type of work**

**Mother's**  
**Type of work**

**Today's Date**:  
**Child's Birthdate**:  
- [ ] Male  
- [ ] Female

**Your relation to the child**:  
- Biological Parent  
- Step Parent  
- Grandparent  
- Adoptive Parent  
- Foster Parent  
- Other (Specify)

**Please fill out this form to reflect your view of the child's behavior even if other people might not agree. Feel free to print additional comments beside each item and in the space provided on page 2. Be sure to answer all items.**

1. **Please list the sports your child most likes to take part in.**  
   - Swimming, baseball, skateboarding, bike riding, fishing, etc.  
   - [ ] None  
   - a.  
   - b.  
   - c.  

2. **Please list your child's favorite hobbies, activities, and games, other than sports.**  
   - For example: stamps, dolls, books, piano, cars, computers, singing, etc. (Do not include listening to radio or TV.)  
   - [ ] None  
   - a.  
   - b.  
   - c.  

3. **Please list any organizations, clubs, teams, or groups your child belongs to.**  
   - [ ] None  
   - a.  
   - b.  
   - c.  

4. **Please list any jobs or chores your child has.**  
   - For example: paper route, babysitting, making bed, working in store, etc. (Include both paid and unpaid jobs and chores.)  
   - [ ] None  
   - a.  
   - b.  
   - c.  

**Compared to others of the same age, about how much time does he/she spend in each?**  
**Compared to others of the same age, how well does he/she do each one?**  
**For office use only ID #**

---

Be sure you answered all items. Then see other side.
IMPROVEMENT IN PRIMARY CARE IDENTIFICATION OF TRAUMA SYMPTOMS OF FOSTER CARE CHILDREN

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>1. Acts too young for his/her age</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>2. Drinks alcohol without parents' approval (describe):</td>
</tr>
<tr>
<td></td>
<td>Not True (as far as you know)</td>
<td>Somewhat or Sometimes True</td>
</tr>
<tr>
<td>---</td>
<td>--------------------------------</td>
<td>---------------------------</td>
</tr>
<tr>
<td>1</td>
<td>2 55. Plays with own sex parts too much</td>
<td>0 1 2 56. Poorly coordinated or clumsy</td>
</tr>
<tr>
<td>0</td>
<td>1 2 58. Punishment doesn't change his/her behavior</td>
<td>0 1 2 59. Quickly shifts from one activity to another</td>
</tr>
<tr>
<td>0</td>
<td>1 2 61. Refuses to play active games</td>
<td>0 1 2 62. Refuses to play active games</td>
</tr>
<tr>
<td>0</td>
<td>1 2 64. Refuses to play active games</td>
<td>0 1 2 65. Refuses to play active games</td>
</tr>
<tr>
<td>0</td>
<td>1 2 67. Refuses to play active games</td>
<td>0 1 2 68. Refuses to play active games</td>
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<tr>
<td>0</td>
<td>1 2 70. Refuses to play active games</td>
<td>0 1 2 71. Refuses to play active games</td>
</tr>
<tr>
<td>0</td>
<td>1 2 73. Refuses to play active games</td>
<td>0 1 2 74. Refuses to play active games</td>
</tr>
<tr>
<td>0</td>
<td>1 2 76. Refuses to play active games</td>
<td>0 1 2 77. Refuses to play active games</td>
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<tr>
<td>0</td>
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<td>1 2 91. Refuses to play active games</td>
<td>0 1 2 92. Refuses to play active games</td>
</tr>
<tr>
<td>0</td>
<td>1 2 94. Refuses to play active games</td>
<td>0 1 2 95. Refuses to play active games</td>
</tr>
<tr>
<td>0</td>
<td>1 2 97. Refuses to play active games</td>
<td>0 1 2 98. Refuses to play active games</td>
</tr>
<tr>
<td>0</td>
<td>1 2 100. Refuses to play active games</td>
<td>0 1 2 101. Refuses to play active games</td>
</tr>
</tbody>
</table>

Please print your answers. Be sure to answer all items.

Does the child have any illness or disability (either physical or mental)? □ No □ Yes—Please describe:

What concerns you most about the child?

Please describe the best things about the child:
Figure 1
Summary of Demographic Statistics of the Gender of Participants

Gender of Participants

- Female: 38% (n=32)
- Male: 62% (n=20)

Figure 2
Summary of Demographic Statistics of the Participant Ages

Number of Participants per Age in Years

AGE IN YEARS

NUMBER OF PARTICIPANTS

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18
Figure 3

Summary of Associated Trauma Symptoms and the Frequencies both Pre and Post assessment tool implementation.
Figure 4

Statistical Figure of Pre and Post Assessment Tool Implementation Mean Values

<table>
<thead>
<tr>
<th>Variable</th>
<th>Pre-implementation</th>
<th>Post Implementation</th>
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</thead>
<tbody>
<tr>
<td>Number of Symptoms</td>
<td>3.67 4.26</td>
<td>32.20 26.09</td>
</tr>
<tr>
<td>Number of Diagnoses</td>
<td>1.06 1.09</td>
<td>1.73 1.87</td>
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</tbody>
</table>
**Figure 5**

*Mean Rank of Trauma Symptoms and Diagnoses from Pre and Post Assessment Tool Implementation Populations Utilizing a Two-Tailed Mann-Whitney Test*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean Rank</th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>U</td>
<td>z</td>
<td>p</td>
</tr>
<tr>
<td>Number of trauma symptoms</td>
<td>20.33</td>
<td>39.60</td>
<td>66.00</td>
<td>-4.25</td>
<td>&lt; .001</td>
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<tr>
<td>Number of trauma diagnosis</td>
<td>24.83</td>
<td>28.80</td>
<td>228.00</td>
<td>-0.91</td>
<td>.363</td>
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