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Date of Submission: April 10, 2019

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Abstract

Children within the foster care community experience health disparities on a variety of levels, from physical and mental health conditions, developmental delay, and impaired social interactions. Many of these conditions can stem from the experience of trauma or adverse childhood events that color each component of their lives. For healthcare providers to be successful in the assessment and treatment of this community, an understanding of traumatic events and the delivery of trauma-informed care is essential. The complex needs of this community are such that the provision of healthcare must be specialized, multidimensional, and organized. The purpose of this project is to assist in the development of a clinic that specializes in the delivery of primary care to the foster care community, with a focus on screening and assessment for the experience of trauma. Children were screened for child trauma as well as for resiliency behaviors, and a tool for chart review was used to examine current health status and services. With the assistance of stakeholders, meticulous follow up on screening results, referrals and recommendations made ensured that no opportunities were missed to provide the highest quality care for this underserved community.

Keywords: *foster care, health care, trauma, screening tool*

Introduction

When it comes to treating children, health care providers must have a complete and holistic understanding of the physical, emotional, and mental health history of the child as well as the experiences that influence these components of health. Children rely on adults to receive proper nutrition, education, activity, safety, shelter, and virtually every aspect of their health to thrive. In the best of cases, children grow strong, develop a sense of self and independence, learn, and form relationships with the world around them. Unfortunately, not all children have the opportunity to receive the quality of care that they deserve. Children in the foster care community are in a uniquely vulnerable position and too often receive inadequate, inconsistent, uninformed care due to forces that are out of their control (Elertson, 2017). Adverse experiences and lived trauma place them at the highest risk for the development of chronic physical, emotional, and developmental conditions that go on to influence the course of their lives. These children are oftentimes the victims of neglect, abuse, and isolation, and have borne witness to horrors that others cannot comprehend (Forkey, Morgan, Schwartz, & Sagor, 2016). Understanding and assessing the extent of trauma experienced can help to lead the decision-making for the course of their care, and help them to thrive. For this particular population, health care providers must strive to deliver trauma-informed care so that the many physical, mental, and emotional needs of these children can be met.

Background

The barriers to the delivery of quality primary care for these children are multifactorial and complex. Due to the circumstances that often accompany the removal of a child from their birth parents, many of these children have received little to no medical care. This includes prenatal care, primary care visits, immunizations, and screenings. For those that do receive medical care, it is oftentimes difficult for primary care providers to obtain their medical records. Many health care providers find that the work involved in providing care for these children, from obtaining a history, communicating with birth and foster parents, and the complex health needs of this population is a deterrent when considering accepting them as patients. Difficulties are exacerbated when custody battles and legal obligations cross jurisdictions (American Academy of Pediatrics, 2015). Massachusetts is the only state in the country that has not adopted the Uniform Child Custody Jurisdiction and Enforcement Act (UCCJEA). The UCCJA provides that a child's "home state" is the state in which the child lived or had lived with a parent or person acting as a parent for six consecutive months before the case is filed. Unlike states that have adopted the UCCJEA, in Massachusetts, if a child has been out of the state for more than six months, the child will no longer be considered a resident of Massachusetts, even if a left-behind parent continues to reside in Massachusetts (Nissenbaum & Hickey, 2017).

Children who grow up in foster care disproportionately experience behavioral, developmental, emotional, physical, and mental health problems compared to children in the general population. For example, approximately 80% of children in foster care have special health needs, or chronic conditions, compared to less than 20% of the general population, even

when comparing against similar levels of poverty and socioeconomic status (Deutsch & Fortin, 2015).

Children in foster care often have histories of trauma, and yet, there is a profound lack of provider knowledge about the delivery of trauma-informed care (American Academy of Pediatrics, 2015). Many providers do not feel that they have received adequate training to provide care that addresses past trauma and traumatic events. Providers self-reported low competency on the care of patients with histories of trauma, making it less likely that they will incorporate care that is trauma-informed, although generally providers feel positive about this approach.. Other barriers to adopting trauma-informed care that has been cited by providers include, a) it is time consuming, b) information can be confusing, and c) they are fearful of re-traumatizing their patients (Bruce, Kassam-Adams, Rogers, Anderson, Sluys, & Richmond, 2018). However, failure to address trauma through screening, assessment, and treatment can have major implications on the health outcomes of a child, and can result in long term public health costs and services over their lifetime (Fratto, 2016.).

Finally, the lack of coordination between health care and child-welfare systems contribute to poor health outcomes. Frequent changes in placement, ineffective continuity and coordination of health care, and a lack of accountability for medical and social needs are just a few of the issues faced when child welfare workers and health care providers do not communicate. Those involved with the care of a child in foster care must be made aware of the child's medical, social, behavioral, and developmental needs (Zlotnik, Wilson, Scribano, Wood & Noonan, 2015).

Problem Statement

The risk of developing chronic conditions such as asthma, obesity, and cardiovascular disease among children in the foster-care system is indicated by the higher incidence of physical, emotional, and developmental issues (80%) in comparison to the general population (<20%). This is a result of adverse childhood experiences/trauma such as the removal of the child from their home, sexual and physical abuse and violence, and neglect (The National Child Traumatic Stress Network, 2014). The purpose of the Quality Improvement project at Holyoke Health Center is to implement a trauma-screening tool within the pediatric clinic that provides care to most of the children in foster care. This foster clinic was created in an attempt to address the many needs of this population, ensuring proper referral, assessment, and follow through of recommendations. Through proper assessment, screening, and follow up, children within the foster care community will receive the proper referrals, both medical and behavioral, that they need to thrive, and providers will be made aware of the potential for long-term health conditions associated with exposure to traumatic events.

Gap Analysis of Project Site

This project is appropriate for the clinical site chosen, the Holyoke Health Center, as there is a large volume of children within the foster care community that are believed to be receiving suboptimal care and follow up. According to the guidelines proposed by the American Academy of Pediatrics, all children are required to receive an initial assessment within 7 days of entering foster care, followed by a comprehensive health assessment within 30 days (American Academy of Pediatrics, 2005). Due to issues obtaining a primary care provider, many of the children within this community are out of compliance with this practice guideline

recommendation. In addition to delay of comprehensive assessment, children in the foster care community are not being referred to medical specialists, dentists, or mental health resources that are also recommended for this population. Lastly, there is a profound lack of trauma-informed care when it comes to the delivery of primary health care in general. In the foster care community, a lack of trauma-informed care can result in missed opportunities to address physical, psychological and social conditions that may result in poor health outcomes across the lifespan.

Review of the Literature

A review of the literature was conducted to determine where gaps in foster-care practice lie, the prevalence of health disparities within the foster care community, and to address barriers and facilitators to the delivery of quality, trauma-informed care for this population. Using the database Cumulative Index of Nursing and Allied Health Literature (CINAHL), the key words *foster care, trauma, screening tool,* and *health care* yielded 334 results. Using the database Pub Med, the key words trauma-informed and foster care yielded 124 articles. Finally, the database Google Scholar was accessed using keywords trauma screening, pediatrics, foster care, and primary care yielded 12,900 results. Due to the large number of results, articles were selected after screening titles and abstracts for appropriateness and relevance to the topic.

The search was narrowed following inclusion criteria of articles written in the English language, published after 2012, focused on care provided within the United States, and research articles or practice guidelines. Exclusion criteria were articles published prior to 2012, opinion-based or editorial pieces, outside the United States, or written in a language other than English. Through this process, eleven articles were selected.

This search resulted in a total of eleven articles in total, consisting of practice guidelines, qualitative studies, experimental studies, meta analyses, quasi-experimental studies, and literature reviews. Level of evidence was assessed using the Johns Hopkins Nursing Evidence-Based Practice Evidence Rating Scales.

The Effects of Trauma on Health

A traumatic event is a dangerous or distressing experience, outside the range of usual human experience, which overwhelms the capacity to cope and frequently results in intense emotional and physical reactions, feelings of helplessness and terror, and threatens serious injury or death (The National Child Traumatic Stress Network, 2014). According to the American Academy of Pediatrics (2017), the majority of children entering foster care have lived in deprived and chaotic environments for a significant period of time, and removal is often the result of safety concerns secondary to maltreatment. The vast majority has been exposed to significant violence, and has a documented history of child abuse or neglect. Even prior to placement in foster care, children experience multiple caregivers, limiting their ability to form stable attachments. All of these experiences of repeated and multiple traumatic events contribute to toxic stress, which in turn can have negative long-term effects upon one's health (Fratto, 2016).

The Adverse Childhood Experiences Study (ACE) was one of the largest research investigations to study the link between childhood stressors and long-term effects on health (National Child Traumatic Stress Network, 2014). Studying over 17,000 participants, data from this study showed that victims of adverse childhood experiences have an increase in the long-term risk of suffering from stroke, diabetes, cardiovascular disease, lung and liver disease,

hypertension, asthma, diabetes, and cancer. Furthermore, early childhood trauma has been shown

to alter brain development by inhibiting neuronal connections needed for the body's stress

response. These neuronal connection disruptions also place the individual at risk for

dysregulation of movement, sensation, and increased hypersensitivity to pain. Traumatized

children understand and interact with the world differently, and so, trauma also affects the social,

emotional, and mental functioning of the individual over the lifetime (Fratto, 2016).

The prevalence of health care conditions among children in foster care is

disproportionately higher than that reported in similar groups of U.S. children who are not in

foster care in similar poverty levels and socioeconomic status. Between 35% and 50% of

children in the child welfare system have special health care needs, compared with less than 20%

of the general population of American children (Deutsch & Fortin, 2015). Children in foster care

are twice as likely to have a learning disability, asthma, and speech problems, and three times as

likely to have Attention Deficit Disorder (ADD), Attention Deficit Hyperactive Disorder

(ADHD), hearing and vision problems. Considering mental health conditions, they are five times

as likely to have anxiety, six times as likely to have behavioral problems, and seven times as

likely to have depression (Turney & Wildeman, 2016).

When children experience adverse events and trauma, they are more likely to utilize

health services over the course of their lifetime. Exposure to sexual abuse, neglect, or general

trauma has been associated with increased rates of medical visits (Jackson et al, 2015). That

being said, understanding the trauma and maltreatment that accompanies a youth into the foster

care system may be useful to the healthcare community when it comes to understanding resource

utilization and could help to design cost-containment strategies (Jackson et al, 2015).

Barriers To the Delivery of Trauma Informed Care

There are several barriers to the delivery of quality health care for children in the foster care (Deutsch & Fortin, 2015). For one, foster parents may be relied upon to determine the need for care and to seek medical and mental health care for children under their supervision. Additionally, foster parents as well as primary care providers may lack access to crucial information regarding the child's past medical, developmental, and medical health history, including prenatal care. This becomes even more difficult as foster care cases cross jurisdictions (Deutsch & Fortin, 2015). Very few children enter the child welfare system with records accurately identifying a health care provider, health conditions, or current level of services received or needed (Elertson, 2017).

Medical care for children in foster care with complex needs can be time consuming, challenging, and requires more referrals, screening, and diagnostic testing than children within the general population require. It also requires constant communication with child welfare agencies, birth families and foster families, and may be complicated by court proceedings. Compensation for physician's effort may not reflect these efforts, deterring providers from becoming involved with this care (Deutsch & Fortin, 2015).

Solutions to Improve Care of the Foster Care Community

It has become clear that a multidisciplinary approach is required if children within the foster system are expected to thrive. The role of the pediatric provider is to advocate for the child, regarding physical and mental health, as well as education and social settings. They must also serve as a resource for the family, both the birth parents as well as foster parents, when it

comes to navigating the health and welfare systems (McDavid, 2015). Welfare workers are more familiar with the stressors, legalities, and social components of a child's life than a healthcare provider may be. Care coordination is particularly difficult for this population due to transiency, the diffusion of authority among parents, child welfare workers, and court systems (American Academy of Pediatrics, 2015). Health care for these children is typically fragmented and crisis-oriented instead of planned or preventative. Through cooperation between health and welfare workers, all needs can be addressed.

Historically, pediatricians have played an important role working with child protective services (CPS) in the initial identification, evaluation and diagnosis of child maltreatment, though this involvement was limited to the CPS investigation period (Zlotnik et al, 2015). In recent years, policy reform in health care as well as child welfare has made it clear that increased accountability and collaboration between health care and child welfare systems are required for the entire duration of time that a child is involved in foster care. In order to bridge the gap between healthcare and welfare systems, the development of specialized foster clinics have been created to meet the specific needs of children in the foster system. These clinics provide children with evaluation, and initial health screening, and a comprehensive health assessment upon entry into the foster system. This has been found to improve communication between case workers, foster and birth parents, and medical provides. Furthermore, these clinics have helped to increase identification and treatment of mental health and developmental needs in the foster community (Zlotnik et al, 2015).

One of the greatest obstacles to providing trauma-informed health care is the lack of education on the part of providers and health care staff. A quality improvement project at one

Wisconsin welfare agency provided educational presentations on the importance of a comprehensive health assessment within 30 days of placement within the foster care system, and included information pertaining to common physical and psychological conditions common in children who enter the foster system. This education intervention increased the completion rate of the 30-day comprehensive health assessment by 20%, and increased the timeliness in which it was conducted. Staff engagement was cited as being a major factor in this achievement (Elertson, 2017).

Screening for childhood trauma is another way to determine the extent of the trauma experienced, which can help guide the plan of care for these children. Formal trauma screening with the Trauma Symptom Checklist (TSC) was instituted at the Foster Children Evaluation Service (FaCES) clinic in Worcester, Massachusetts in October 2010. This screening tool is available in two forms, the Trauma Symptom Checklist for Young-Children (TSC-YC) used for children aged 3-10, and the Trauma Symptom Checklist for Children (TSC-C), used for children ages 11-16. Mental health services referrals were made for all children who had trauma screen scores one standard deviation above the mean or higher. Prior to the use of this screening tool, approximately 46% of foster children in the clinic were identified to have trauma symptoms. After the implementation of this screening tool, 78% of the foster children were found to have trauma symptoms (Forkey, Morgan, Schwartz & Sagor, 2015).

Evidence Based Practice: Verification of Chosen Option

For this project, the implementation of a trauma screening tool was considered to be the most feasible, practical, and meaningful intervention for this particular setting.

Theoretical Framework

Carlson and Dalenberg's (2000) conceptual framework for the Impact of Traumatic Experiences will be used to guide this quality improvement project The three defining features that make an experience traumatic include perceived negativity, lack of controllability, and suddenness. Re-experiencing and avoidance are the primary responses to trauma, and manifest in cognitive, affective, behavioral, and physiological ways. Responses to trauma are influenced by biological factors, developmental level at the time of the event, severity of the stressor, social context, and prior and subsequent life events. Secondary responses to traumatic events include depression, aggression, substance abuse, physical illnesses, low self-esteem, identity confusion, difficulties with interpersonal relationships, and feelings of guilt and shame (Carlson & Dalenberg, 2000). This framework is appropriate for the population being studied in this project because each of its core elements are not only specific to trauma, but consider developmental age as well. It helps to understand the causes of the trauma experienced, while also describing ways that the experience of trauma can manifest in the children's everyday lives, which is an ongoing process. Finally, it makes the healthcare provider aware of the potential complications that these children may experience as a direct result of lived trauma.

Goals, Objectives, Expected Outcomes

- Goal 1: 100% of children within the foster care clinic from January 2019—March 2019 who are offered the questionnaires will Complete the Child's Reaction to Traumatic Events Scale-Revised and Childhood Trauma Questionnaire (administered by the DNP student).

- Goal 2: 75% of children will accept the recommendation for mental/behavioral health referral from January 2019--March 2019.

- Goal 3: Children will attend 75% of medical referrals from January 2019--March 2019.

Project Site and Population

The project site was the Holyoke and Chicopee Health Centers (sister health centers) in Massachusetts. The two sites are urban community health centers that provide primary health care to the surrounding communities. The majority of the patients that present to this clinic are of Hispanic descent, with Spanish as the primary language. Inclusion criteria for the population included each child aged five to twenty-two years within the foster care community that presented to the specialized Foster Care Clinic. Children who did not already have a primary care provider established were assigned to the Nurse Practitioner of the Foster Care Clinic, while those who received care from other providers met exclusion criteria. The Foster Clinic consisted of one primary care provider, a medical assistant for support staff, two medical social workers, two Department of Children and Families workers, a Behavioral Health Network clinician, a Registered Nurse Care Manager, and the DNP student.

Setting facilitators and barriers: Facilitators included that there was organizational support for the creation of a specialized clinic for primary care of the foster community. The setting was accessible for most patients. The providers and other medical staff were supportive and invested in the delivery of trauma informed care. Initially, there was some resistance from some of the other primary care providers at the health centers, as they wished to care for their own patients that were already in foster care, or for existing patients that entered the foster care system. To resolve this issue, those providers were able to provide the necessary care,

including the seven and thirty day comprehensive screens, for these patients. These particular

patients were exempt from the trauma screening interventions. Follow up for these patients

was still conducted during the monthly stakeholder meetings, but they were not included in

the data collection for this project. Initially, a resiliency class was going to be offered to these

children. Many stakeholders were pessimistic regarding the offered resiliency class. After

much discussion, it was determined that it may not be feasible for these children to attend

such classes, nor would many be amenable to it. It seemed to be one more appointment that

they would have to make in an already hectic/chaotic life. To resolve this issue, an additional

screening tool was added. In addition to the Childhood Trauma Questionnaire, the Child

Reaction to Traumatic Events Scales-Revised (CRTES-R) assessment tool helped to assess

the children's resiliency.

Project Design

A cross-sectional approach to data gathering was used as design for this clinic-based project.

Two questionnaires were used to screen the foster children for experiences of trauma, and

chart reviews were conducted to provide demographic data and health related information.

Additionally, the DNP student attended group meetings with health care staff and

Department of Child Services workers.

Procedure

Pre-intervention: Regular monthly meetings were held with key stakeholders.

Pre-intervention: the DNP student attended 12 monthly meetings with key stakeholders of the

foster-care clinic, including the primary care provider, medical social workers, the DNP student,

and behavioral health clinicians. The purpose of these meetings was to discuss patient progress, needs, and attendance to referrals.

Intervention: The Nurse Practitioner alerted the DNP student when a child within the foster system was scheduled for an appointment. Questionnaires were administered at the beginning of the child's health care visit. A chart review of each patient was conducted using Mitchell's Chart Review Tool to obtain patient demographics, including age, race, and health and behavioral diagnoses. All patient information was kept in a password-protected computer accessed only by the DNP student. Personal identifiers were eliminated, and each child was provided a case number (1-8). Patients and their caregivers received written informed consent about the use of the tools measures to lead trauma-informed care, and that the data gathered would be part of a DNP student QI project. They were also informed that both the DNP student as well as the Nurse Practitioner are mandated reporters, and that any cause for concern for harm/neglect would be reported to the proper authorities. Data was verified and reviewed at each monthly stakeholder meeting with the primary care provider, medical social workers, DNP student and DCF workers. Monthly statistics were kept regarding kept appointments, patients seen, and compliance with initial and thirty day screens. Following each monthly meeting, Medical Social workers followed up with patients that missed referrals to elicit why appointment was missed.

Methods

In accordance with the American Academy of Pediatrics' guidelines, each child that enters the foster care community within the Holyoke and Chicopee, Massachusetts foster system must receive a seven day screening with a primary care provider. They also receive a thirty- day comprehensive visit with the designated primary care provider.

Data about each child in foster care was shared by key stakeholders, including the primary care provider, the DNP student, medical social workers, behavioral health clinicians, and Department of Children and Families workers at the monthly meetings of the group. Data within this spreadsheet included the child's demographics, seven and thirty- day comprehensive screening completion, mental health referrals, medical referrals, and attendance rates of referrals, as well as information pertaining to the cause of missed referrals. This data was kept in password protected computers at the Holyoke/Chicopee Health Centers. Using this data, medical social workers followed up with foster parents via phone when appointments were missed.

During monthly stakeholder meetings, missed appointments were reviewed regarding the cause or associated circumstances resulting in missed appointments, and this information was used to assist families to prevent future gaps in care.

Questionnaires and Chart Review Tool

The Childhood Trauma Questionnaire (Recent Traumatic Events Scale) is a brief questionnaire that asks about six early traumatic experiences (death, divorce, violence, sexual abuse, illness and other) and assesses the individual's understanding of their childhood trauma. For each of the six events, participants are asked to rate how traumatic the experience was on a scale of 1-7 (1 = not at all, 4 = somewhat, and 7 = extremely traumatic). It then goes on to assess if and how much they confided in others at the time (1 = not at all, 4 = somewhat, 7 = a great deal). There is no psychometric information available for this questionnaire and the items can be interpreted at face value. The questionnaire has no scoring key, thus, it can be scored and interpreted according to the needs of this project (Pennebaker & Susman, 1988).

The Child Reaction to Traumatic Events Scales-Revised (CRTES-R) is a 23- item self report measure designed to assess psychological responses to stressful life events. The scale was initially intended to assess symptoms of Intrusion and Avoidance, but was recently modified to include symptoms of Arousal as well. The revised CRTES uses a 4 -point frequency rating scale: not at all (0); rarely (1); sometimes (3); and often (5). Each item represents a comment that is made after exposure to traumatic events. The patient will mark how often such a feeling/thought was true over the last seven days. A low distress score is 0-14, moderate distress score is 15-27, and high distress is indicated by as score of 28 or higher (National Child Traumatic Stress Network, 2018).

Each instrument is available in both English as well as Spanish, the two primary languages spoken by the majority of the patients that present to the clinical project site.

Mitchell's Chart Review Tool was used to collect data from the electronic health records. The tool explores the following items: gender, age, height, weight, chronic health conditions, immunizations, dental, behavioral and emotional issues, mental disorders, and whether or not the patient is being seen by a behavioral health provider.

Data Collection

Data including the CTQ score, CRTES-R score, patient demographics, data gathered with the health record review form, referrals recommended, and those accepted/kept by the patient were calculated. Analyses included descriptive statistics performed using SPSS and thematic qualitative analysis.

Results

The age range for children who responded to questionnaires was age 7-17, with a mean age of 13. Six of the participants were female, and two were male. With regards to ethnicity, two were Caucasian, four were African American, and two were Hispanic. Of the children who participated, six of the children suffered from chronic disease (asthma, hypertension, obesity). Half of the children were overweight. Of the eight participants, all but one experienced some kind of behavioral issue, with positive responses for sleep disturbance, overeating, toileting issues, and even homicidal ideation. Half of the participants experienced sleep disturbance, and half of the participants exhibited aggression.

CTQ Results: Half of the participants had experienced the death of a friend or family member, 7 experienced a major upheaval within their family, 1 experienced a traumatic sexual experience, 3 were the victims of violence, 2 had been extremely ill or injured, 7 had changed schools, and all 8 participants stated that they had experienced a traumatic event that they believed changed their personality. When trauma was experienced, the majority of the children answered that it was either somewhat or extremely traumatic. There was high variability pertaining to whether or not the children confided in others regarding the various individual traumatic experiences, though all of the children had confided in others at some point.

CRTES-R Results: One participant was determined to have a moderate distress score as determined by the CRTES-R, while each of the other participants scored within the high distress category. Of the traumatic events experienced, five participants cited being removed from their parents, while the other three participants cited physical abuse, sexual abuse, and parental drug use as their respective traumatic events.

Additional Chart Review of the Foster Care Population

Due to the small sample size of this project, the decision was made to do an additional chart review to examine characteristics and demographics of the other foster children that were being cared for under the Foster Care Clinic's Nurse Practitioner. Many of these children were excluded from the project due to age, or did not have an appointment with the Nurse Practitioner during the data collection period. An additional 14 foster children's health records were reviewed, for a total of 22 health record reviews.

Of the twenty-two foster children under the care of the Nurse Practitioner at the Foster Care Clinic, the age range was from one to seventeen years, with an average age of eight. Six were male, and sixteen were female. With regards to ethnicity, seven were Caucasian, five were African American, and ten were Hispanic. Half of the total population had a chronic condition, while fourteen of the twenty-two children also had some form of behavioral condition or issue. Of note, the most common behavioral issue was sleep disturbance, with ten children reporting difficulty sleeping. Within the clinic, seven of the twenty-two children displayed aggression or aggressive behaviors. Seven of the children were being treated for a mental disorder. Only six children were of normal weight, nine were overweight, and seven were underweight.

Speaking to the success of the Foster Care Clinic, of the twenty-two children, all but two were up-to-date on their immunizations, and all that were age appropriate (age 1 or older) had seen a dentist. Sixteen children were appropriate age (aged 3 or older) for mental health referral . Of these, 12 kept their appointments, which exceeded the goals for the project (75%), although these children were not included in the data collection. All five children that

received a medical referral kept their appointments, exceeding the project goal of 75%. While information pertaining to traumatic experiences and resilience was unavailable for the additional fourteen patients, it is reassuring to see that all of the children within this clinic are receiving the proper referral and follow-up they need to thrive.

Thematic Analysis

After analyzing the qualitative data from the monthly meetings, four themes were found.

Theme 1: Removal or Separation from parents was overarching, as all of the children were currently in the foster care system. Some of them had been removed because of neglect, as their parents had not ensured that they were receiving the proper medical care or going to school. Others were removed from their parents due to physical abuse, drug use in the home, or due to homelessness.

Theme 2: Aggression. Of the participants, two had been arrested for physical assault. One child was brought in to the emergency department for a crisis evaluation after she attempted to harm her foster mother and the other foster children in her home with a dangerous weapon. Another participant engaged in a physical altercation with a woman in a parking lot, damaging property and physically assaulting her. According to the foster child, the woman "spoke to me the wrong way".

Theme 3: Presence of chronic and behavioral conditions. All but one of the children exhibited some kind of behavioral disorder, and all but two had a chronic condition. Of note, the

one child that did not exhibit any behavioral or medical conditions was the child who scored

lowest on the CRTES-R Questionnaire.

Theme 4: Resilience. All of the children had been exposed to traumatic events that they

perceived had changed who they were. Despite this, the CTQ questionnaire did show that most

of the children had good insight into their traumatic experiences, and they spoke freely and easily

about the things that had happened to them. All of the children were able to discuss their past

traumas with the DNP student, who was a stranger to them, with ease. They could each describe

these events, the ways in which they were affected by them, and could describe just how

traumatic these events were for them. When one child was asked if she experienced any feelings

of guilt regarding her experience, she stated that she knew it was not her fault, and that she had

done the best she could to survive an abusive situation. Despite their experiences, each of the

children were perceived by the DNP student as being thoughtful, earnest, and engaged. They

seemed well-adjusted and eager to get past their lived traumas, with obvious goals set in mind

for the future.

Cost-Benefit Analysis

The cost for this project was relatively low, as it was conducted in an already existing

practice, and did not utilize any resources that were not previously established. Regarding time,

data collection and organization took approximately 3 hours each week. The twelve monthly

stakeholder meetings lasted two hours on average. The DNP student spent on average two hours

per child visit to administer the questionnaires and to complete the chart review. Total estimated

hours on site were 40 hours, all of which was unpaid, or required no additional reimbursement

for existing providers and clinical staff. Additionally, this project had benefits to the foster care community (Appendix A).

Ethical Considerations/Protection of Human Subjects

The University of Massachusetts, Amherst (UMass) Institutional Review Board (IRB) approval was obtained after submission of the official IRB Determination Form prior to initiating the DNP project. Patient confidentiality was maintained in accordance with the Health Insurance Portability and Accountability Act of 1996 (HIPAA), protecting patient confidentiality. All identifying patient information removed, with all information kept in a password protected computer accessed only by the DNP student. Case identification numbers were assigned to patients instead of using their names or initials for means of data keeping. Patients were made aware of the project upon entry into the clinic verbally, and received written assent/consent forms as well. Each child was given the option to opt out of any portion, such as completion of the Childhood Trauma Questionnaire as well as the Child Reaction to Traumatic Events Scales-Revised assessment. The excel spreadsheet that helped guide monthly meetings was only accessed by Holyoke Health Center employees, and was be updated/reviewed at monthly meetings only by stakeholders who are involved in their care.

Conclusion

In conclusion, improved communication, continuity, and consistency among key stakeholders resulted in fewer missed opportunities to align these children with the proper resources and ensure they received the care they needed. An awareness of children's risk for the development of chronic physical and mental health condition based upon exposure to traumatic

events was established, assisting the primary care provider in clinical decision making. The

intervention of a screening tool helped the participants to realize the extent of their trauma, to

understand it, and to confide in others about their traumatic experiences. Assessing resiliency in

this community helped to provide these children with the tools they need to thrive despite

exposure to traumatic events. Monthly stakeholder meetings allowed for proper follow up,

making sure that referrals were attended. The development of specified primary care clinic,

complete with trauma screening assessment, helped to ensure that quality, evidence-based care

was delivered to a community that has historically been vulnerable to disparities in health care.

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Appendix A

Cost-Benefit Analysis

Activity	Hours	Total Time
Data Collection and Chart Review	2 hours x 8 Participants	16 Hours
Data Analysis	36 hours	36 Hours
Monthly Stakeholder Meeting	2 hours x 12 months	24 hours
Total		76 hours