1

# Running Head: IMPROVING TEENS' ADHERENCE TO THEIR MEDICATIONS

A Training Program for Therapeutic Living Counselors Supervising Self-Medication Among

Commercially-Sexually Exploited Children in a Residential Therapeutic Home Setting

Irene Tsimba Zenga, RN

University of San Francisco

School of Nursing and Health Professions

NURS 653 Internship

Instructor: M. Donnelly DNP, MPH, ACNP-BC, ANP-BC, CNL

Date: April 14, 2020

#### Abstract

**Problem:** Commercial sexual exploitation of children (CSEC) is a critical human rights and public health issue. Abundant evidence shows that sexually exploited youth are at high risk for medical and psychiatric problems, manifest fright and isolation, and have substantial trauma mitigation needs. A short term residential therapeutic home (STRTP) was created in Northern California to provide holistic care to teens victims of sexual exploitation. A therapeutic team is necessary to provide the medical and mental health requirements of STRTP residents.

**Context:** This evidence-based change of practice project was conducted at a 15-bed STRTP in Northern California that will house sexually trafficked female youth. To support the medical needs of youth, the STRTP is partnered with a local community health center and a school of nursing to train therapeutic living counselors (TLCs) to help teens increase their adherence to their medication regimens. Evidence supports that a nurturing environment, higher levels of self-esteem, and an internal locus of control is associated with increased adherence to medication regimens. This training focuses on TLCs because they provide 24/7 care to teens and are vital to promoting medication adherence among teens.

**Interventions:** The project goal is to provide a safe and patient-centered environment where teenagers can avoid triggers of trauma. The intervention was to develop an evidence-based educational program for the TLCs to promote teens' self-esteem and increase internal locus of control. A training process was designed to help TLC meet five measurable learning objectives: (1) Increase their knowledge in signs and symptoms of complex trauma, (2) trauma-informed approach (3) behaviors consistent with internal locus of control, (4) behaviors related to self-esteem, (5) patient-centered care approaches. Evidence suggests that understanding complex trauma and patient centered and trauma informed approaches will improve teens' adherence to

medication regimen. The training program consists of a PowerPoint presentation, an educational video, group discussions, and visual props to reinforce learning.

**Measures:** Evaluation of the training program uses pre- and post-survey questionnaires on the five training objectives. Responses to pre-survey inquiries will be compared to the post-survey questionnaires to determine if TLCs improve their knowledge.

**Results:** The results of these pre and post surveys are pending since the training related to TLCs has not yet been conducted. From evidence reported in the literature and the results of a related medication protocol training carried out at the STRTP, it is anticipated that pre-test and post-test will improve.

**Conclusion:** Results for this project cannot be reported because the TLC training has not yet taken place. The training was postponed because of the COVID-19 pandemic and sheltering in place order. However, evidence supports that improving TLCs' knowledge on trauma informed approaches, teens' internal locus of control, teens' self-esteem, and patient-centered approaches will increase teens' participation and adherence to their medication regimens.

## Introduction

Assessing the prevalence of commercially sexually exploited youth within the United States is fraught with difficulty, and numbers vary widely. Recent estimates from the Institute of Medicine and National Research Council range from 1,400 to 2 million (Williams, 2017). Commercial sexual exploitaion of youth, colloquially labeled "sex trafficking" implies that a youth is coerced to have sexual contact with others against their will, under illegal, and perhaps dangerrous conditions, for the benefit of others (Sanchez, Speck, & Patrician, 2019). An individual who is trafficked may be locked up, drugged, beaten, made to work for many hours a day, or starved. Le, Ryan, Rosenstock, & Goldmann (2018) demonstrated that teens who have been trafficked for sex experience physical and mental conditions detrimental to their health. Commercial sexually exploited children (CSEC) manifest fright and isolation and have substantial trauma mitigation and mental health needs (Barnert, et al. 2017). The need for residential programs uniquely tailored to meet the needs of CSEC has long been recognized (Heather & Goldblatt, 2006). In 2017, a nonprofit charity organization in the San Francisco Bay Area that works with children, youth, and families supported the establishment of a short term residential therapeutic program (STRTP) for commercially sexually exploited youth. The STRTP is intended to house 12 teenage sex-trafficking victims aged 12 to 17 and provide a 24-hour safe residential home setting for girls. Residential treatment for CSECs can provide structure, security, and predictability, with the added benefit of allowing youth to continue to attend school while receiving therapeutic services (Hodgdon et al., (2013).

Teens who will reside at the STRTP frequently take prescribed medication as part of their therapy. In order to provide the required youth supervision in the absence of licensed healthcare personnel, a medication training program was implemented to teach STRTP therapeutic living counselors (TLCs) how to supervise the youth for self-medication. In addition to having supervision, the teens need support to develop the agency and ability to self-adhere to their own medication regimens.

The goal of this project is to provide training to TLCs to improve teens' agency for adherence to their medication regimens. Guided by evidence-based practices, the project team aims to increase the knowledge and skills of the TLCs in order to promote internal locus of control and self-esteem in the resident teenagers, provide patient-centered care, and offer a safer place to live.

A nurse educator is central to achieving the goals of this project, as the one responsible for using appropriate teaching principles, strategies, information, materials, and technologies to teach health care professionals and other staff under their supervision (American Association of Colleges of Nursing [AACN], 2007). Through training, educating, and building the caregiving skills of the TLCs at the STRTP, the nurse educator uses their expertise to help ensure teens adhere to their medication regimens.

# **Problem Description**

Traditionally, medical doctors and registered nurses have taken a paternalistic approach to healthcare, providing care to a relatively submissive patient (Alexander, Lindsay, & Kedar, 2017). By contrast, today's healthcare providers increasingly focus on involving patients in their own care. Evidence supports that a patient's active role in decision-making leads to better health outcomes and decreases costs to the healthcare system, particularly through reducing unnecessary hospital visits (Bhavan, Brown, & Haley, 2015)

Teenagers need to comprehend their health conditions and participate in their own care to stabilize, prevent, and/or minimize complications (McCarthy, 2013). Teenager-centered care

5

occurs when providers train teens to deliver their own care, on their own time, without external locus of control (direction from a licensed professional); thus, the teenagers take the medicines themselves without supervision (Alexander, Lindsay, & Kedar, 2017). Therefore, by promoting patient-centered care, internal locus of control, self-esteem, and safety, this evidence-based project aims to increase the understanding among TLCs of these crucial elements associated with teens' adherence to their medication regimens.

Teenagers' self-administration of their medications in a residential facility presents some challenges. One challenge is to establish a standard, manageable protocol that includes methods to distribute medicine and provide appropriate resident and provider responses to adverse events that may arise. This challenge was met with the design of protocols for the safe handling of medications and responses to adverse events at the STRTP, established by a clinical nurse leader through a previous project. A second challenge is to encourage and support the resident teenagers in taking responsibility for their own care. Meeting this challenge is the focus of this project, which provides a pathway to promote knowledge development for TLCs to address the developmental needs of CSEC with respect to complex trauma, trauma-informed approaches, the importance of internal locus of control and self-esteem, and patient-centered-care. A training program was developed to encourage the TLCs to practice patient-centered care, promote the teenager's quest for knowledge about their bodies and their medications, increase the teens' abilities to make better choices for their bodies, and help them adhere to their medication regimens.

## **Data Source/Review of Literature**

The project team performed a literature review based on a practice issue. The Patient/Population, Intervention, Comparison, Outcome, and Time (PICOT) is an organizing

template used to structure question development (Abbade et al., 2017). The question to answer is, "Will training to increase TLCs' knowledge of complex trauma, trauma informed approaches, teens 'internal locus of control, teens' self-esteem, and patient-centered care promote teens compliance with their medication regimen?" The PICOT approach used to review the literature was, (1) P: TLCs at the STRTP, (2) I: The use of a trauma-informed and patient centered care; and support of teens' internal locus of control and self-esteem, (3) C: The scores from the pre-test compared to post-test and (4) O: By improving the knowledge among the TLCs, the teenagers will adhere to their medication regimen 90% of the time, (T): Over one month.

The keywords and phrases, *trauma technique approach*, *teens' internal locus of control*, *teens' self-esteem*, *patient-centered care*, *teen's compliance to their medication* were used. Very few articles were found with the above keywords and the majority were expert opinions. See Appendix A for appraisal of literature using Melynk's Levels of Evidence.

The intervention in this project is an evidence-based educational program for the TLCs to increase their knowledge on five topics: complex trauma, trauma-informed approach, internal locus of control, self-esteem, and patient-centered care. The evidence from the review of literature suggested that the use of these approaches will improve CSEC medication adherence and teens' participation in their healthcare.

## Trauma-informed care for high-risk youth.

CSEC youth are at high risk for a broad range of adverse consequences, such as posttraumatic stress disorder (Cohen, Mannarino, & Kinnish, 2017; Kronish, Edmondson, Li, & Cohen, 2012). Patients with posttraumatic stress disorder (PTSD) are at increased risk for adverse outcomes from comorbid medical conditions. Medication non-adherence is a potential

# IMPROVING TEENS' ADHERENCE TO THEIR MEDICATIONS

mechanism explaining this increased risk of morbidity and mortality observed in patients with PTSD (Cohen, Mannarino, & Kinnish, 2017). Repeated physical and emotional trauma among CSEC may lead to an increase in symptoms such as self-harming behaviors, suicidal ideation, hyperventilation, and poor treatment outcomes. Evidence supports the need to knowledge among TLC at the STRTP on complex trauma, trauma informed approaches, internal locus of control, self-esteem, and patient-centered care to promote teenagers' adherence to their medication regimen.

Muraya & Fry (2016) conducted a systematic review of literature on therapeutic home services provided to trafficked teens globally. Articles reviewed emphasized the importance of children's rights and trauma-informed services to prevent re-traumatization and the need to increase TLCs' knowledge of a trauma-informed approach to provide a safe and patient centered environment.

Teens in residential homes who have experienced more exposure to trauma than other youth, experience an accumulation or a "dose-response" that relates to the association of trauma to function (Barnet, Iqbal , Bruce, Anoshiravani, Kolhatkar, & Greenbaum, 2017). The youth in residential homes studied by Barnet et al. were found to have complex trauma histories and numerous placement disruptions and transitions associated with greater exhibition of functional impairment.

Hodgdon, Kinniburgh, Gabowitz., Blaustein, & Spinazzola (2013) conducted an analytic data study with complexly traumatized youth in residential treatment. The authors described the application of an evidence-based, trauma-informed treatment approach, regulation, and specific competencies guided by the Attachment, Regulation, and Competency (ARC) framework for intervention by staff working with highly traumatized teens in residential treatment. The ARC

framework offers a guiding structure for caregivers working with trauma-impacted youth and allows for adaptation to a setting, such as a residential treatment center. The framework focuses on three core domains relevant to future resiliency: attachment, self-regulation, and competency.

According to Hodgdon et al., (2013), studies have demonstrated that youth in residential placement had increased rates of impairment in many domains, such as academic dysfunction, behavior problems, affective problems, self-injury, substance abuse, runaway behavior, and suicidal ideation. These behaviors may be considered survival behaviors (Greenbaum & Crawford, 2015). Because trauma is a fundamental issue for many youths entering residential treatment and the main contributor to their emotional disturbances, trauma-informed residential care for therapeutic counselors is crucial. A trauma informed approach reduces trauma trigger behaviors used by therapeutic living counselors. Trauma triggers can lead to CSEC dysregulation and survival behaviors such as reactive aggression, self-harm and run-away behaviors. The trauma informed approach in a youth residential setting requires training the caregivers, administrators, residential counselors, and clinicians. (Hodgdon et al., 2013). Moreover, providing a trauma-informed therapeutic environment that goes beyond the individual therapy hour is critical for traumatized teens who require ongoing assistance in their daily interactions with the world. Hodgdon et al., (2013) concluded that teens who received trauma-informed approaches displayed a significant reduction in trauma-related symptoms. The following are examples of the behaviors related to a trauma therapeutic related environment: a decrease in attention problems, positive adaptive behaviors, and a decrease in rule-breaking behaviors, depression, anxiety, and thought problems such as hallucinations and delusions. This study validates the need for training TLCs to increase their knowledge in trauma-informed approach to

promote teens' adherence to their medication regimen which is an example of positive adaptive behaviors.

Increasing TLCs' knowledge of trauma-informed approach to promote teens' adherence to their medication regimen is a goal of this project. In a longitudinal study done by Chambers (2019), the author recommended the practice of the Medical Safe Haven approach to provide a safe environment for trafficked girls to prevent re-traumatization and rehabilitation failures. The study emphasis is on trauma-informed techniques while caring for trafficked teens. Few professionals are trained to apply techniques of effective patient-centered and trauma-informed care. The Medical Safe Haven approach (a health care model) is a trauma-informed strategy that trains health providers to recognize the signs and symptoms of trauma. The research underlines the importance of an understanding for the role that trauma plays in the social, mental, and physical development of children.

Chambers (2019), also recognized the significance of re-traumatization prevention by caregivers. The goal of the Medical Safe Haven approach is to improve patient health outcomes and rehabilitation in the community by removing barriers to care. An example of a barrier to care would be prolonged waiting time to receive appropriate care or referrals to resources. Trauma-informed care is rooted in a nonjudgmental, empathetic, patient-first perspective, and requires patience to create opportunities for CSEC to rebuild a sense of internal locus of control and empowerment. Pioneering Dignity Health Medical Safe Haven programs were able to improve the lives of several CESC using the trauma-informed technique by reducing the use of the emergency room (Chambers, 2019). The article supports training to reinforce TLCs' knowledge regarding a trauma-informed approach to provide a safe and patient centered environment where teens can avoid triggers of trauma.

# Internal locus of control and self-esteem.

Internal locus of control can play a significant impact on teens' adherence to their medications at a short term residential therapeutic home. Christiansen, Hansen, & Elklit (2014) conducted a cross-sectional design study in 320 trauma-exposed adolescents to explore the compound effect of personality traits, locus of control, attachment, and social support on rational, emotion-focused coping, and avoidance. The study suggested that teaching traumaexposed teenagers' adaptive ways of coping is a necessary intervention for adolescents with Post-Traumatic Stress Disorder (PTSD). Also, securely attached teenagers are youth who can seek comfort from a meaningful figure when they are going through difficulties, tend to seek and perceive more societal support in response to stress, compared to adolescents with insecure affection patterns. Adolescents with insecure affection patterns do not feel protected by their caregivers, and they know that they cannot depend on them to return. People having an external locus of control worry excessively about stressful situations. However, the authors of the study suggested that persons with an internal locus of control can handle stressful events using active, problem-focused managing strategies and rationale, and therefore, teenagers are more likely to adhere to their medication regimen when they feel they have a higher dimension of control on their own lives. This article supported the need to inform the TLCs' of the importance of the trauma informed approach, understanding of internal locus of control, the importance of selfesteem, and patient-centered care. These subject matters are important in promoting teens' adherence to their medication regimen.

Nazareth (2016), conducted a survey that also demonstrates that internal locus of control (LOC) may influence personal health behaviors, which can impact health outcomes among youth. External locus of control is related to harmful health outcomes. However, internal locus of

control is associated with the following positive outcomes increases in the use of healthcare resources, medication regimen adherence, and school attendance. This study justifies the relevance of the clinical nurse leader training to increase TLCs' knowledge of the importance of internal locus of control which will promote teens' adherence to their medication regimens at the STRTP.

Powers et al., (2018) published a qualitative study focusing on essential ingredients for promoting self-determination and successful transition to adult life among youth in foster care. The qualitative study had ten participants aged from 11 to 18 years. Participants were selected from a sample of 111 youth who were randomized to the intervention group of a three longitudinal randomized controlled trial (RCT) study of intervention outcomes, in addition to completing the one-year intervention. The authors associated higher levels of internal locus of control with confidence, capacity, skills, and life satisfaction among youth in foster care. Powers et al., (2018) suggested that focusing on building self-determination among teens in foster care based on teen identified elements and procedures, could enable growth in transition planning, management barriers, and goal accomplishment. Usually, youth in foster care have decreased opportunities to express self-determination. Youth inability to express self-determination may be exacerbated by professionals who lack the understanding of skills required to support the voices of young people effectively. This study validates the necessity of increasing the TLCs knowledge of the importance for teens' internal locus of control and patient' centered care to promote building self-determination, consolidate their goal accomplishments, increase the knowledge of their medications, and increase adherence to their medication regimen.

Self-esteem may play a significant role in increasing healthy behaviors of CSEC. Jozefiak et al., (2017) published a cross-sectional study design questioning if self-esteem could contribute to the quality of life being low (QoL) among teens living in residential care. The outcomes indicated that perceptions of social acceptance and physical appearance among adolescents were associated with QoL. Also, supporting self-esteem might be used to improve the QoL of teens besides treating their psychopathology. Providing health pamphlets specifically focusing on teenaged developmental needs and healthcare needs could increase their awareness of their own bodies. Providing open discussion and written material regarding specific mediation that have been prescribed may lead to increased medication regimen adherence. Thus, CSEC who have higher levels of self-esteem could make better decisions for their bodies and improve adherence to their medication regimen. This article provided valuable information regarding teens' self-esteem, which will be used by the evidence-based change project team to enhance training that focuses on increasing LTCs knowledge to teens' self-esteem in order to promote adherence to their medication regimen.

## Patient-centered care.

Patient-centered care is important in increasing the wellbeing of CSEC. Greenshields (2019) mentioned that evidence in the literature has demonstrated that physical health is important for teenagers' wellbeing and functioning. For youth to feel the commitment to and support of care, they require someone that they trust. Moreover, they need to be trusted, given responsibility, have choices, and be involved in decisions to enable empowerment. Teens in care are vulnerable and are known to have poorer health and educational outcomes compared to other youth because of the abuse and neglect that they experienced (Greenshields, 2019). TLCs must comprehend the individual and social background of these residents to ensure that appropriate supports can be provided to meet the needs of teens in care. This article confirms that teens need to be partners in decisions made in their plan of care, to promote empowerment, and thus,

enhance adherence to their medications. The evidence-based project team will use this article to increase TLCs knowledge in the importance of patient-centered care to promote teens' adherence to their medication regimen at the STRTP.

Finally, Chenneville et al., (2015) published a cross-sectional study in the department of Pediatrics in South Florida to examine the degree to which decisional capacity (DC) is related to measures of self-reported medication adherence. They hypothesized that youth with higher levels of DC report higher levels of antiretroviral medication adherence. The authors concluded that there is an association with measures of self-reported medication adherence when youth are partners in the decisional capacity (DC) of care delivered to them (Chenneville et al., 2015). Teens with HIV who demonstrated a greater understanding of their illnesses were more likely to report fewer missed doses in the last seven days. Medication adherence is increased when health care professionals working with HIV youth enhance their understanding of how HIV is transmitted, its symptoms, and its treatment. This article enhances the need to increase TLCs knowledge of trauma informed approaches, understanding of internal locus of control and self-esteem, patient-centered care that promotes teens adherence to their medication regimen.

## **Theoretical Framework/Rationale**

The Health Failure Modes and Effects Analysis (HFMEA) is a five-step, evidence-based tool used for risk assessment (Hughes, 2008). The first step is to define the topic. The second step is for team members to assemble. The third step involves developing a process map for the topic and giving a number to each step and substeps of that process. The fourth step is a hazard analysis formulation. In the fifth step, actions and desired outcomes are developed. While conducting the hazard investigation, it is imperative to list all possible and potential failure modes for each process, to determine whether the failure modes need more action. A further

examination of the causes for each failure should be done. After the completion of the hazard analysis, it is vital to consider actions to take, outcome measures to assess, the description of what to eliminate, and the people responsible for each new action.

The HFMEA model was meticulously followed during the evidence-based practice project. At the beginning of this project, a topic was defined. Then, the leadership member assembled to determine the concept map related to this project. A literature evidence-based review was then conducted. However, the training associated with this project was not done. Therefore, the clinical nurse leader will not give conclusive remarks at this time.

The design of the evidence-based change project was centered on a model of equitable care. This model highlights the importance of providing care that does not vary in quality because of personal characteristics such as gender, ethnicity, geographic location, and socioeconomic status (Bau, Logan, Dezii, Rosof, Fernandez, Paasche-Orlow, & Wong (2019). Among the many reports, recommendations for action needed to eliminate disparities are those that emphasize equity and patient-centered care, such as the implementation of patient education programs to increase patients' knowledge of how to best access care and participate in treatment decisions (Bau et al., 2019). To prepare for the evidence-based change project and increase their awareness in patient equity of care skills, the clinical nurse leader team participated in training related to CSEC in Northern California. Experts led the training in the field of CSEC. Besides, by working with CSEC at a drop-in teen clinic in an urban area that specializes in caring for trafficked and homeless youth, the team also expanded its skills on the equity of care. It allowed the team to expand their knowledge on patient equity of care and understanding of survival behavior of CSEC and the need to provide training that focuses on patient equity and patientcentered care.

# **Specific Project Aim**

The specific aim of this evidence-based change project is to increase the TLCs' understanding of the importance of (a) a trauma informed approach, (b) promoting internal locus of control and self-esteem, and (c) providing patient-centered care to improve teens' adherence to their medication regimens. A training process was planned to help TLCs meet five measurable learning objectives: knowledge of complex trauma, trauma informed approaches, behaviors consistent with internal locus of control, behaviors consistent with self-esteem, and knowledge of patient-centered care. To evaluate the effectiveness of the training, the scores from the pre-educational questionnaires will be compared to the post-educational questionnaires to determine if TLCs had increased their knowledge on complex trauma, trauma informed approaches, self-esteem, locus of control and patient centered care.

## Methods

To recognize the needs and aspects of the project, assessments were conducted through SWOT analysis, root cause analysis, the 5Ps, and pre-and post-surveys.

## **SWOT** Analysis

An analysis of the strengths, weaknesses, opportunities, and threats (SWOT) was conducted to help guide design and implementation of the project. The acronym SWOT stands for strength (S), weakness (W), opportunities (O), and threat (T). A SWOT analysis assesses the aspect of care provided in the residential program for CESC (Pastrana, Centeno, & De Lima 2015). See Appendix B for SWOT Analysis.

Several strengths were identified. First, the collaborative partners are supportive of this evidence-based change project. The STRTP is partnered with specialized services in caring for CSEC, such as a local medical clinic and a school of nursing. Second, the TLCs are committed to

participate and learn to support teens' compliance with their medication regimens. Third, the environment at the STRTP is safe and promotes discussion, feedback, training, and continuing education. Fourth, the training is cost-effective and far less expensive than employing a registered nurse 24/7 to administer medications.

Several weaknesses were revealed by the analysis. First, the STRTP has not yet admitted its first residents, so protocols and procedures for the STRTP are still being piloted. Second, there is a paucity of published literature on health promotion for CSEC, which could call into question the credibility of this project. Third, English is not the primary language for some TLCs, which could impose a communication barrier and impede effective monitoring of teens' self-medication. Fourth, TLCs have different levels of knowledge, experience, and education, so they are not a uniform population to train. Some have been working as TLCs for years observing teens' self-medication and administration, while others are college students with little experience as TLCs.

Implementation of this training presents several opportunities. First, increased TLC knowledge of complex trauma, trauma-informed approach, self-esteem, internal locus of control, and patient-centered care is anticipated to promote teens' adherence to their medication regimen. Second, besides achieving the five training objectives, it is anticipated that adherence to medication regimens will be supported. A third opportunity is to provide teens a safe place to live where they will experience fewer triggers of trauma and gain understanding of complex trauma. Fourth, this training could serve as a model for other STRTPs.

There are several threats to the implementation of this training. TLCs must attain the required score of 90 % on the post-survey questionnaire to indicate sufficient knowledge of trauma-informed approach, self-esteem, internal locus of control, and patient-centered care.

Furthermore, it is possible that the TLC's may not retain learned skills due to the lack of opportunities for real-life application. Finally, TLCs may become exhausted from learning new and applying new information in addition to fulfilling their ongoing responsibilities at the STRTP.

## **Root Cause Analysis**

Root cause analysis was conducted to assess the STRTP. A root cause analysis is a method of problem-solving used to identify problems in a microsystem (Latino, 2015). The categories of contributing factors used in the analysis are people/staff, process/procedures, equipment, environment, system/management. After careful assessment, the clinical nurse leader team concluded the TLCs at the STRTP needed additional skills to promote teens' adherence to their medication regimen. See Appendix C for Root Cause Analysis.

**People/staff**: The medical director orders medications and only registered nurses can administer medications. However, the medical director and the registered nurse are on-site only for a short time during the week. The TLCs who are the therapeutic staff and present at all times are only allowed to observe the self-medication administration. The TLCs have varying levels of experience and for some of them, English is not the primary language.

**Process/procedures**: Medication delivery protocols are in the pilot stage since teens are not yet residing at the STRTP. Also, protocols needed to mitigate survivor behaviors are not yet in place. These protocols are essential for TLCs to use to understand teenagers' behavior and prevent their re-traumatization. Finally, TLCs don't have protocols to support the teens' developmental needs: internal locus of control, self-esteem, and care to increase adherence to medication regimens. **Equipment**: The medication/health room is not furnished in a way that supports a patient- centered and trauma-informed approach. Medication cabinets are not yet set up, and medical equipment is lacking.

**Environment**: The environment of the medication/health room is not attractive to teens. Educational materials which will meet the developmental needs of teenagers are needed. The medication room is shared with the manager, which can lead to a lack of privacy and increase the potential for medication errors.

**System/management**: Gaps in communication between the STRTP manager and the medical director have resulted in missed joint meetings, in turn decreasing the timelines and effectiveness of communication.

## **5Ps Microsystem Assessment**

The 5Ps microsystem assessment was used to assess the STRTP. 5Ps refer to the essential elements of a well-functioning microsystem. It also considers the interrelatedness of those elements in meeting the needs of the patients. The 5Ps acronym stands for professionals, processes, patterns, purpose, patients (Barach & Johnson, 2006) See Appendix D for the list of all STRTP staff and their responsibilities.

**Professionals** make up many of the STRTP staff. The team is composed of the medical director, the registered nurse, the therapeutic living counselors (TLCs), shift leads, janitors, mental health clinicians, case managers, and house manager. The medical director provides a complete medical and mental health assessment of each teen before their admission to the residential home and is on call 24 hours for any medical emergencies and triaging. The medical director prescribes medications as deemed therapeutically appropriate, including contraceptives, antibiotics, antivirals, psychotropics, vitamins, benzodiazepines, pain medications and other

medications. The registered nurse provides support to the residents and to the TLCs once a week. TLCs are present 24 hours per day, seven days a week. Their responsibilities include observing the teens self-administering their medications. Moreover, the TLCs supervise, protect, support, and care for residents, including cooking, doing laundry, and ensuring the general upkeep of the facility.

The **process** for the microsystem is still in its pilot phase as the STRTP is not yet open to residents.

**Patterns** include regular staff meetings and training to prepare for the first admission of the teens.

The **purpose** is to increase the TLCs knowledge of complex trauma, trauma-informed approach, self-esteem, internal locus of control, and patient centered-care to improve teens' adherence to their medications. Finally, the residents are children who have been commercially and sexually exploited, aged 13-17 years.

It was determined from the microsystem analysis that TLCs need to be trained prior to and prepared for the first admissions. TLCs have varied levels of experience at the SRTP. Some of them have been working as TLCs for years observing teens' self- administration of medications, while others are college students with little experience. Furthermore, some LTCs speak English as a second language, which could affect their understanding of the topic related to prior training. Although TLCs already have training on trauma-informed approaches, because training is mandatory at the STRTP (CDSS, 2016), their previous training may need to be reinforced.

After the 5Ps microsystem assessment, the leadership team of the medical director, the therapeutic house manager, and the clinical nurse leader concluded that there was a need to

provide a strategy to promote healthy adaptive behaviors among the teens. The question arose as to how best to involve teenagers in their own care.

# **Cost Analysis**

This project considered the cost advantage of supervised medication self-administration over having a registered nurse administer medications A cost-benefit analysis was performed utilizing data from the U.S. Bureau of Labor Statistics (2019). The cost of training TLCs was estimated to be \$ 15,434 per year for eight training sessions. Hiring a full-time registered nurse to administer medications would cost an average of \$102,700 per year (California Registered Nurse Salary, 2020). Usually, the registered nurse administers medications. However, the nurse educator/ project leader provides training for the TLCs, which is less costly and safe compared to a registered nurse administering the medications to the teens. A cost analysis projected that the STRTP will save \$ 87,266 per year. See Appendix E for Cost- Benefit Analysis.

## **Gantt Chart**

To illustrate the project schedule and track the team's progress, a Gantt chart was created, aimed at describing the 3-month project timeline. The project started in January 2020 and ended in April 2020. First, the leadership team identified the focus of the problem, created a PICOT question, created an aim statement, performed a needs assessment, and conducted a pre-post survey questionnaire. Then, a literature review was conducted, and a business case was developed. However, the COVID-19 Pandemic and sheltering in place order interrupted the project timeline and prevented administration of the pre-training survey and training. See Appendix F for Gantt Chart.

# Interventions

The objective of the evidence-based change project is to increase TLCs knowledge in a trauma informed approach, internal locus of control, self-esteem, and patient-centered care to improve teen's adherence to their medication regimen. The primary intervention of enhancing the training process and providing educational materials was delayed due to the Coronavirus pandemic and closure outpatient activities. Also, the determination of the training materials effectiveness cannot be made again because of the public measures to inhibit more than 10 people meeting together. The educational material is provided on a PowerPoint presentation developed from the evidence available.

## **Study of the Interventions**

The evaluation of the training program will be based on the pre- and post-survey questionnaire. These pre and post-survey questionnaires are identical and cover 5 areas. These questionnaires cover knowledge topics which include trauma-informed approach (Appendix G), self-esteem (H), locus of control (Appendix I), patient-centered care (Appendix J), and medication adherence (Appendix K). The pre survey questionnaire will be given before the lecture to establish a baseline knowledge score for each TLC. A score of 90% on the post-survey questionnaires will be required of each TLC. Scores will also be used to evaluate if the training objectives have been met.

According to the Center for Substance Abuse Treatment (2014), the trauma-informed questionnaire is used to identify individuals who have histories of trauma and experience trauma-related symptoms. Recognizing trauma symptoms in CSEC can lead to improved adherence in medication regimen (Chambers, 2019). The questionnaire for this project was modified to assess the TLCs' knowledge of a trauma-informed approach and to evaluate the training. The questionnaire contains 12 questions. The TLC will get one point for each correct answer, which

will be converted into percentages. The TLCs must obtain the required score of 90 % on the post-survey questionnaire to indicate an adequate knowledge of a trauma-informed approach (Alaska Medication Administration, 2014). See Appendix G for the Trauma Informed Questionnaire with answers.

The questionnaire on self-esteem was created to assess self-esteem among 1,800 early adolescents from 5th to 8th grade. Also, the self-esteem questionnaire assesses the evaluation of the self-relating to each primary context of the early adolescent developmental stage, such as peers, school, and family. This questionnaire also assesses two additional salient domains of experience for this age group which are sports/athletics and body image (DuBois, 1996). This questionnaire was modified to determine the TLCs' accuracy in determining the elements of internal or external locus of control. Higher scores will indicate enough knowledge of self-esteem, which is one of the learning objectives of the training. Promoting self-esteem behaviors among the CSEC is thought to be associated with medication adherence (Chen et al., 2013). The survey has eight questions. TLC will earn one point for each question. The points will be calculated in percentages, and the TLCs must get a score of at least 90 % on the post-survey questionnaire to indicate a sufficient knowledge regarding self-esteem characteristics. See Appendix H for Self-Esteem Questionnaire with answers.

Julian Rotter (1966) devised a locus of control personality test to assess the extent to which an individual possesses internal or external reinforcement beliefs. There are no right or wrong answers, and this survey gives a general idea of where some stand on the locus of control personality dimension. To evaluate the TLC knowledge regarding locus of control, the locus of control questionnaire was modified to measure the TLCs knowledge of internal locus of control. Individuals are more likely to adhere to medication regimen with higher levels of internal locus of control (Nazareth et al., 2016). This test has 20 questions. TLC will earn 1 point for a correct answer. The total point earned will be calculated in percentage, and TLC must earn at least 90% to indicate an increased internal locus of control. See Appendix I for Locus of Control Questionnaire and the answers.

Jenkinson et al. (2002), created a patient-centered care questionnaire to determine what aspects of healthcare provision are most likely to influence patient's satisfaction and to explore which satisfaction is a meaningful indicator of patient experience of healthcare services. The clinical team leader modified this questionnaire to determine the TLCs knowledge of patient-centered care. This questionnaire has eight questions. The TLC will earn one point for each correct answer, and the total marks will be calculated in percentage. TLCs must get the required score of 90 % on the post-survey questionnaire to indicate sufficient knowledge on patient-centered care. See Appendix J for Patient Centered Care Questionnaire and the answers.

The fifth questionnaire addresses knowledge on medication adherence. Vasylyeva, (2013), reported that the medication adherence questionnaire assesses knowledge of variables that influence medication regimen adherence among children and adolescents. The questionnaire was modified by the team leader to assess the TLCs knowledge of patient-centered care. The TLC will earn one point for any correct answer, and the total points will be calculated in percentage. TLCs must get the required score of 90 % on the post-survey questionnaire to indicate sufficient knowledge of patient-centered care activities (Alaska Medication Administration, 2014). See Appendix K for Medication Adherence Questionnaire and the answers.

To increase TLCs' knowledge of a trauma informed approach, self-esteem, internal locus of control, and patient centered care, a PowerPoint containing 36 slides was developed. The

PowerPoint includes descriptors of complex trauma survival behaviors among teenagers, traumainformed treatment approaches, behaviors consistent with internal locus of control, behaviors of self-esteem, characteristics patient-centered associated with medication adherence. The goal of the training is to reinforce TLCs' knowledge on these topics. The TLCs' have previously received training related to the topics mentioned above. During the PowerPoint presentation and before each new topic, the clinical nurse leader educator will ask the TLCs a number of questions to identify levels of knowledge and to share previous experiences (See Appendix N). After completing the root cause analysis (RCA), the clinical nurse leader along with the medical director, and assistant manager determined that the physical arrangement of the medication room needed changes to support an environment that met the developmental needs of teenagers. Originally, the future medication room was also used as an office. According to Mahmood, Chaudhury, & Valente, (2011), the small size of the medication room is a potential environmental factor that can lead to medication errors. Therefore, the clinical nurse leader recommended that the medication room be patient-centered, providing confidential health services directed at meeting the needs of CSEC. The focused attention of the TLCs, in the medication room, on the observation of self -administration of medications is believed will prevent medication errors. Secondly, providing a medication room attractive to teenagers will promote teenager's inquisitiveness regarding the health needs of their body. The team leader will provide pamphlets and other educational material that are age appropriate. Donald, Arays, Elliott, and Jordan (2018), declared that age specific, trauma informed educational materials will improve patient self-efficacy. Self-efficacy is defined as teenagers seeking and understanding medical information and seeking appropriate support with questions related to their health. Therefore, the clinical nurse leader's recommendation is that the medication room at the STRTP

should have age related and trauma informed pamphlets and flyers to help teens educate themselves about their bodies. Finally, the medication room is not furnished based in a patientcentered way. Therefore, the clinical nurse leader team recommended additions to the medication room supplies and atmosphere. The additions addressed the needs of teenagers and patientcentered care. See Appendix M for elements needed to update the medication room/health room.

The project leader/ educator will provide the Focus Groups' Result Questionnaires during the TLC's training. Before and after the PowerPoint presentation, questionnaires related to the level of confidence in their role of observing teens' self- administering medications, satisfaction with supervising, protecting, daily cooking, laundry, general upkeep of the facility, and suggestions for further training topics will be completed. These questionnaires are not graded. The reason for these questionnaires is to evaluate the TLCs' satisfaction to the training and to determine topics for future training. See Appendix L for Focus Groups Results Questionnaires). **Measures** 

To evaluate the TLCs' knowledge on internal locus of control, self-esteem, and patientcentered care, scores will be tabulated on pre and post-training questionnaires and analyzed to determine if the TLCs' scores improved. The questionnaires are provided as Appendix G for Trauma Informed Approaches, Appendix H for Self-Esteem, Appendix I for Locus of Control, Appendix J for Patient-cCentered Care, and Appendix K for Medication Adherence.

#### Results

Results cannot be reported conclusively because the TLC training had not yet taken place when the project ended. However, evidence supports that improving TLCs' knowledge on trauma informed approaches, teens' internal locus of control, teens' self-esteem, and patientcentered approaches care will increase teens' participation and adherence to their medication regimens (Alexander, Lindsay, and Kedar, 2017). Therefore, the nurse leader team anticipates that TLC training will encourage the CSECs to take more responsibility for their own care and increase self-adherence to medication regimens.

## Discussion

The evidence-based change project is designed to provide training to TLCs in a STRTP on trauma informed approaches, teenager's internal locus of control, teenager's self-esteem, patient-centered approaches which will promote adherence to the medication regimen. The aim of this project is to support (1) teens' internal locus of control, (2) teens' self-esteem, (3) patientcentered care. The Health Failure Modes and Effects Analysis (HFMEA) model was meticulously followed for the planning and implementation of the project. The first step involved the definition of the project. Then, the leadership members assembled to determine the concept map related to this project and the assessment done. The clinical nurse educator used the Equitable Care model when planning the project. Among other aspects of leading the project, the clinical nurse educator reviewed literature, participated in 20 hours of training led by experts in the field of CSEC, and attended a drop-in teen clinic that specializes in caring for sexually trafficked teens to understand provision of care equity for CSEC. However, the provision of training to TLC's within the STRTP has not taken place. All training materials were produced and will be sent to the medical director and the manager of the STRTP.

#### Conclusion

The vision of this short term residential therapeutic program (STRTP) is to serve, support, and affirm teen survivors of human trafficking through culturally appropriate healing, honoring the whole person, and offering a path to joy and dignity through trauma-informed practice. This STRTP defines itself as a therapeutic community because the staff integrates healing restoration into each facet of the operation, policies, and procedures. This evidencebased project supports the vision by providing training to TLCs, which will enhance their knowledge on trauma informed practice. A portion of the trauma informed practice is to foster the practice of teenagers' participation in decisions about their healthcare and the right to access health education.

The three-hour training program can serve as a model for training STRTP staff, supporting a teenager's right to make medical care decisions which are beneficial to their health. The staff training consists of a PowerPoint presentation. The subject matter covers 5 topics which are believed will help the TLCs support and encourage self-esteem and internal locus of control among the teenage residents. As these teenagers develop internal locus control and selfesteem, it is anticipated that adherence to their medication regimens will be supported. As an outcome of the training, the TLCs will be able to use skills that include a trauma-informed approach and patient centered care. The cost benefit analysis shows that this training is sustainable, cost-effective, and has the potential to improve teenagers' compliance with their medication regimens. The COVID-19 pandemic of 2020 and shelter in place mandate delayed this training project and therefore the training has not yet been conducted. The PowerPoint presentation and the project description will be shared with the medical director and staff of the STRTP. It is hoped that in the future the PowerPoint will be presented to the TLCs and the pre and post presentation questionnaires used to evaluate knowledge gained by the TLC staff. The value of the project will be more evident once the TLCs participate in the training and their knowledge gained and satisfaction can be evaluated. Future projects could include evaluation of teens' adherence to their medication regimens after TLC training and integration of the principles of care into daily practice.

I would like to thank the medical director, the STRTP manager, and the TLC staff for their time, support, and assistance.

## References

- Abbade, L., Wang, M., Sriganesh, K., Jin, Y., Mbuagbaw, L., & Thabane, L. (2017). The framing research questions using the PICOT format in randomized controlled trials of venous ulcer disease is suboptimal: A systematic survey. *Wound Repair & Regeneration*, 25 (5), 892–900. https://doi.org/10.1111/wrr.12592
- Alaska Division of Public Health. (2014). Alaska Medication Administration: A guide for training unlicensed school staff. Retrieved from http://dhss.alaska.gov/dph/wcfh/Documents/school/assets/Medication.Administration.Gui de.for.Training.Unlicensed.School.Staff.pdf
- American Association of Colleges of Nursing. (2007). *White paper on the education and role of the clinical nurse leader*. Retrieved from http://www.aacn.nche.edu/publications/whitepapers/ClinicalNurseLeader.pdf
- Anderson, A., Martin, L., Mate., K. (2017). The value of teaching patients to administer their own care. *Harvard Business Publishing*. Retrieved from https://hbr.org/2017/06/thevalue-of-teaching-patients-to-administer-their-own-care
- Axelson, D., Birmaher, B., & Douaihy, A. (2020). A brief motivational intervention for enhancing medication adherence for adolescents with bipolar disorder: A randomized pilot trial. *Journal of Affective Disorders*, 265, 1–9. https://doi.org/10.1016/j.jad.2020.01.015
- Barach, P., & Johnson, J. K. (2006). Understanding the complexity of redesigning care around the clinical microsystem. *Quality & Safety in Health Care*, 15(Suppl 1), i10–i16. https://doi.org/10.1136/qshc.2005.015859

Barnert, E., Iqbal, Z., Bruce, J., Anoshiravani, A., Kolhatkar, G., & Greenbaum, J. (2017). Commercial sexual exploitation and sex trafficking of children and adolescents: A narrative review. *Academic Pediatrics*, 17(8), 825–829. https://doi.org/10.1016/j.acap.2017.07.009

Bhavan, K. P., Brown, L. S., & Haley, R. W. (2015). Self-Administered Outpatient
Antimicrobial Infusion by Uninsured Patients Discharged from a Safety-Net Hospital: A
Propensity-Score-Balanced Retrospective Cohort Study. *PLoS Medicine*, *12* (12), 1–18.
https://doi.org/10.1371/journal.pmed.1001922

- Bau, I., R. A. Logan, C. Dezii, B. Rosof, A. Fernandez, M. Paasche-Orlow, & Wong F. (2019).
  Patient-centered, integrated health care quality measures could improve health literacy, language access, and cultural competence. NAM Perspectives. Discussion Paper, National Academy of Medicine, Washington, DC. <u>https://doi.org/10.31478/201902a</u>
- California Registered Nurse Salary (2020). U.S. Bureau of Labor Statistics. Retrieved from https://www.nursingprocess.org/rn-salary/california/
- Center for Substance Abuse Treatment (2014). Trauma-Informed Care in Behavioral Health Services. Rockville (MD): Substance Abuse and Mental Health Services Administration (US). (Treatment Improvement Protocol (TIP) Series, No. 57.) Chapter 3, Understanding the Impact of Trauma: https://www.ncbi.nlm.nih.gov/books/NBK207191/
- Centers for Disease Control and Prevention. (2020). Sex Trafficking. Retrieved from https://www.cdc.gov/violenceprevention/sexualviolence/trafficking.html
- Chambers R. (2019). Caring for human trafficking victims: A description and rationale for the Medical Safe Haven model in family medicine residency clinics. *International journal of psychiatry in medicine*, *54*(4-5), 344–351. https://doi.org/10.1177/0091217419860358

- Chen, T., Wantland D., Reid, P., Corless, B., Eller, S., Iipinge S., ...Webel, R (2013).
  Engagement with healthcare providers affects self- efficacy, self-esteem, medication adherence and quality of life in people living with HIV. *Journal of AIDS & Clinical Research*, 4(11), 256. https://doi.org/10.4172/2155-6113.100025
- Chenneville, T., Clutter, M. O., Hintz, S., Walsh, A., Emmanuel, P., Lujan-Zilberman, J., & Rodriguez, C. (2015). Decisional capacity and medication adherence among youth with HIV. AIDS Care, 27(3), 338–341. https://doi.org/10.1080/09540121.2014.993582
- Christiansen, D., Hansen, M., & Elklit, A. (2014). Correlates of coping styles in an adolescent trauma sample. *Journal of Child & Adolescent Trauma*, 7(2), 75–85. https://doi.org/10.1007/s40653-014-0011-2
- Cohen A., Mannarino P., & Kinnish, K. (2017). Trauma-focused cognitive behavioral development and implementation of trauma-informed programming in youth residential treatment centers using the ARC framework. *Journal of Family Violence*, 28(7), 679–692. https://doi.org/10.1007/s10896-013-9531-z

California Department of Social Services (2016). Short-Term residential therapeutic program. Retrieved from https://www.cdss.ca.gov/inforesources/continuum-of-care-reform/short-term-residential-therapeutic-program

- Donald, R. A., Arays, R., Elliott, J. O., & Jordan, K. (2018). The effect of an educational pamphlet on patient knowledge of and intention to discuss screening for obstructive sleep apnea in the acute ischemic stroke population. *Journal of Neuroscience Nursing*, 50(3), 177–181. https://doi.org/10.1097/JNN.00000000000361
- DuBois, D. L., Felner, R. D., Brand, S., Phillips, R. S. C., & Lease, A. M. (1996). Early adolescent self-esteem: A developmental-ecological framework and assessment strategy.

Journal of Research on Adolescence, 6, 541-578. Retrieved from https://pubmed.ncbi.nlm.nih.gov/10723539/

- Ferris M, Hasket M, Pilkington S, & Williams M. (2007). Pediatric ethics, issues, & commentary. Financial analysis of acetaminophen suicide in a teen girl. *Pediatric Nursing*, 33(5), 442–451.
- Goldstein, T., Krantz, M., Fersch-Podrat, R., Hotkowski, N., Merranko, J., Sobel, L., Axelson,
  D., Birmaher, B., & Douaihy, A. (2020). A brief motivational intervention for enhancing medication adherence for adolescents with bipolar disorder: A pilot randomized trial. *Journal of Affective Disorders*, 265, 1–9. https://doi.org/10.1016/j.jad.2020.01.015
- Greenbaum J., & Crawford-Jakubiak E. (2015). Child sex trafficking and commercial sexual exploitation: Healthcare needs of victims. *American Academy of Pediatrics*. Retrieved form https://pediatrics.aappublications.org/content/135/3/566
  Greenshields (2019). Children and young people in care. British Journal of Nursing, 28(19), 1148–1149. https://doi.org/10.12968/bjon.2019.28.19.1148
- Haberman, C., Yi Zhong, Rak, E., Jain N., Ferris M., Tilburg V., M. L., & Zhong Y (2016).
  Relating health locus of control to health care Use, adherence, and transition readiness among youths with chronic conditions, North Carolina. *Preventing Chronic Disease, 13*, 1–7. https://doi.org/10.5888/pcd13.160046 Nursing, 33(5), 442–451.
- Heather J., & Goldblatt L (2006). Finding a path to recovery: Residential facilities for minor victims of domestic sex trafficking. U.S. Department of Health and Human Services.
  Retrieved from https://aspe.hhs.gov/report/finding-path-recovery-residential-facilities-minor-victims-domestic-sex-trafficking/residential-facilities

- Hodgdon, H., Kinniburgh, K., Gabowitz, D., Blaustein, M., & Spinazzola, J. (2013).
  Development and Implementation of Trauma-Informed Programming in Youth
  Residential Treatment Centers Using the ARC Framework. *Journal of Family Violence*, 28(7), 679–692. https://doi.org/10.1007/s10896-013-9531-z
- Hughes R. (Ed). (2008). Tools and strategies for quality improvement and patient safety. *Patient Safety and Quality: An Evidence-Based Handbook for Nurses*. Chapter 44. Rockville (MD): Agency for Healthcare Research and Quality. Available from: https://www.ncbi.nlm.nih.gov/books/NBK2682/

Ijadi-Maghsoodi, R., Cook, M., Barnert, E. S., Gaboian, S., & Bath, E. (2016). Understanding and responding to the needs of commercially sexually exploited youth:
Recommendations for the mental health provider. *Child and Adolescent Psychiatric Clinics of North America*, 25(1), 107–122. https://doi.org/10.1016/j.chc.2015.08.007

- Jenkinson, C., Coulter, A., Bruster, S., Richards, N., & Chandola, T. (2002). Patients' experiences and satisfaction with health care: results of a questionnaire study of specific aspects of care quality and safety in health care. *Quality and Safety in Healthcare,11*(4):335-9. Retrieved from https://www.ncbi.nlm.nih.gov/pubmed/12468693
- Jozefiak, T., Kayed, N., Ranøyen, I., Greger, H., Wallander, J., & Wichstrøm, L. (2017). Quality of life among adolescents living in residential youth care: do domain-specific self-esteem and psychopathology contribute? *Quality of Life Research*, 26(10), 2619–2631. https://doi.org/10.1007/s11136-017-1603-8

Kronish, I. M., Edmondson, D., Li, Y., & Cohen, B. E. (2012). Post-traumatic stress disorder and

medication adherence: results from the Mind Your Heart study. *Journal of psychiatric research, 46* (12), 1595–1599. https://doi.org/10.1016/j.jpsychires.2012.06.011

- Latino J. (2015). How is the effectiveness of root cause analysis measured in healthcare? *Journal* of Healthcare Risk Management, 35(2), 21–30. https://doi.org/10.1002/jhrm.21198
- Le, P. D., Ryan, N., Rosenstock, Y., & Goldmann, E. (2018). Health issues associated with commercial sexual exploitation and sex trafficking of children in the United States: A systematic review. *Behavioral Medicine*, *44*(3), 219–233.

https://doi.org/10.1080/08964289.2018.1432554

- Mahmood, A., Chaudhury, H., & Valente, M. (2011). Nurses' perceptions of how the physical environment affects medication errors in acute care settings. Applied Nursing Research, 24(4), 229–237. https://doi.org/10.1016/j.apnr.2009.08.005
- McCarthy C (2013). *Teens: time to take more responsibility for your health*. Retrieved from https://thriving.childrenshospital.org/teens-time-to-take-more-responsibility-for-your-health/
- Muraya, D. N., & Fry, D. (2016). Aftercare services for child victims of sex trafficking. *Trauma*, *Violence & Abuse*, *17*(2), 204–220. https://doi.org/10.1177/1524838015584356
- Narvaez, J. C. de M., Remy, L., Bermudez, M. B., Scherer, J. N., Ornell, F., Surratt, H., Kurtz, S.
  P., & Pechansky, F. (2019). Re-traumatization cycle: Sexual abuse, post-traumatic stress disorder and sexual risk behaviors among club drug users. *Substance Use & Misuse*, *54*(9), 1499–1508. https://doi.org/10.1080/10826084.2019.1589521
- National Center for Injury Prevention and Control (2020). Sex trafficking. Retrieved from https://www.cdc.gov/violenceprevention/sexualviolence/trafficking.html

Nazareth, M., Richards, J., Javalkar, K., Haberman, C., Zhong, Y., Rak, E., Jain, N., Ferris, M.,

& van Tilburg, M. A. (2016). Relating health locus of control to health care use, adherence, and transition readiness among youths with chronic conditions, North Carolina. *Preventing Chronic Disease, 13*(E93). https://doi.org/10.5888/pcd13.160046

Nursing: PICOT. (2020). Retrieved from https://libguides.lcc.edu/nursing

- Pastrana T., Centeno C., & Lima D (2015). Palliative Care in Latin America from the Professional Perspective: A SWOT Analysis. Journal of Palliative Medicine, 18(5), 429– 437. https://doi.org/10.1089/jpm.2014.0120
- Powers, L. E., Fullerton, A., Schmidt, J., Geenen, S., Oberweiser-Kennedy, M., Dohn, J., Nelson, M., Iavanditti, R., & Blakeslee, J. (2018). Perspectives of youth in foster care on essential ingredients for promoting self-determination and successful transition to adult life: My life model. *Children & Youth Services Review*, *86*, 277–286. https://doi.org/10.1016/j.childyouth.2018.02.007
- Rotter, J. (1966). Generalized expectancies for internal versus external control of reinforcement. *Psychological Monographs: General and Applied, 80*(1), 1–28. https://doi.org/10.1037/h0092976
- Sanchez, R. V., Speck, P. M., & Patrician, P. A. (2019). A Concept Analysis of Trauma Coercive Bonding in the Commercial Sexual Exploitation of Children. Journal of Pediatric Nursing, 46, 48–54. https://doi.org/10.1016/j.pedn.2019.02.030

Short term residential therapeutic home, (2019). Therapeutic living community: Staff Program Manual. V2.1.

U.S. Bureau of Labor Statistics. (2019). Occupational employment statistics. Retrieved from https://www.bls.gov/oes/2018/may/oes311014.htm

- U.S. Bureau of Labor Statistics. (2020). California registered nurse salary survey. Retrieved from https://www.nursingprocess.org/rn-salary/california/
- U.S. Department of Health & Human Services (n d). Finding a path to recovery: residential facilities for minor victims of domestic sex trafficking. Retrieved from https://aspe.hhs.gov/report/finding-path-recovery-residential-facilities-minor-victims-domestic-sex-trafficking/residential-facilities
- U.S. Bureau of Labor Statistics. (2019). Occupational employment statistics. Retrieved from https://www.bls.gov/oes/2018/may/oes311014.htm
- Vasylyeva, L., Singh, R., Sheehan, C., Chennasamudram, P., & Hernandez, P. (2013). Selfreported adherence to medications in a pediatric renal clinic: psychological aspects. PloS One, 8(7), e69060. https://doi.org/10.1371/journal.pone.0069060
- Walker. K.(n.d.). Prevalence of Commercially Sexually Exploited Children. Pillsbury Winthrop Shaw Pittman LLP Foundation. Retrieved from https://www.sandi.net/staff/sites/default/files\_link/staff/docs/student-

services/Prevalence\_of\_Commercially\_Sexually\_Exploited\_Children.pdf

Williams. R. (2017). Safe harbor: State efforts to combat child trafficking. National Conference of State Legislatures. Retrieved from

https://www.ncsl.org/Portals/1/Documents/cj/SafeHarbor\_v06.pdf

#### IMPROVING TEENS' ADHERENCE TO THEIR MEDICATIONS

## Section VII. Appendices

## Appendix A

#### APPRAISAL OF LITERATURE USING MELNYK'S LEVELS OF EVIDENCE

Source	Level	Type of Literature
Muraya & Fry (2016)	1	Systematic review of randomized controlled trials (RCTs) and evidence- based clinical practice guidelines
Cohen, A., Mannarino, & Kinnish,	2	Well-controlled RCT
(2017)		
Powers et al., (2018)	2	Well-controlled RCT
Greenbaum & Crawford (2015)	7	Expert opinion
Ijadi-Maghsoodi et al. (2014)	7	Expert opinion
Chambers, (2019)	7	Expert opinion
Christiansen, Hansen, & Elklit (2014)	7	Expert opinion
Jozefiak et al., (2017)	7	Expert opinion
Nazareth et al., (2016)	7	Expert opinion
Greenshields (2019)	7	Expert opinion
Chenneville et al., (2015)	7	Expert opinion

## Appendix B

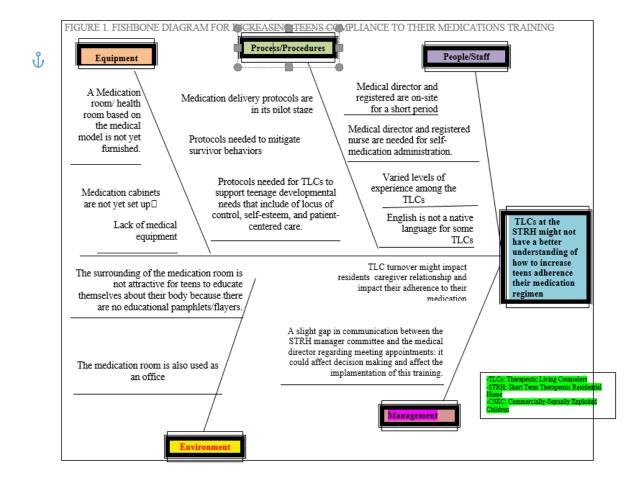
### **SWOT ANALYSIS**

Strengths	Weaknesses
<ul> <li>Collaborative partners are open about this evidence- based change project</li> <li>TLCs are committed to participate and increase their knowledge.</li> <li>The environment is safe promoting discussion, feedback, training and continuing education.</li> <li>The STRTP is partnered with specialized services in caring.</li> <li>The implementation of this project has a low cost.</li> </ul>	<ul> <li>The STRTP has not admitted its first residents yet.</li> <li>There is little literature related to health promotion for CSEC.</li> <li>English is not the primary language for some TLCs.</li> <li>TLCs have different levels of knowledge, experience, and education.</li> <li>Finally, protocols are in the pilot phase.</li> </ul>
Opportunities	Threats/Challenges
<ul> <li>Promote teens' adherence to their medication regime.</li> <li>Long cost saving</li> <li>Provide a safe place for teens to live.</li> <li>The training could serve as a model for other STRTP.</li> </ul>	<ul> <li>TLCs must get at least 90% on the post survey questionnaire to indicate an increased knowledge on trauma-informed approach, self-esteem, internal locus of control, and patient centered care.</li> <li>Inability of TLC's to retain the information learned due to lack of opportunities for practice in real-life.</li> <li>Exhaustion of TLCs given the high magnitude of the new information.</li> </ul>

-LTC: Therapeutic Living Counselors -CSEC: Commercially Sexually Exploited Children - STTR: Short Term Therapeutic Residential Home

#### Appendix C

#### **ROOT CAUSE ANALYSIS**



## Appendix D

## LIST OF STRTP STAFFS AND THEIR RESPONSIBILITIES

Roles	Responsibilities
Therapeutic Living Counselors (TLCs)	<ul> <li>Supervises, protects, and cares for residents</li> <li>Daily cooking, laundry, ensure general upkeep of facility</li> <li>Assists residents with medication self-administration</li> </ul>
Janitor Plus (Support Staff)	<ul> <li>Janitorial roles</li> <li>Relief TLC roles and responsibilities</li> <li>Assists residents with medication self-administration</li> </ul>
Shift Leads (Facility Manager Designee)	<ul> <li>A TLC that serves as the campus authority whenever the House Manager is not present or functioning</li> <li>Maintain supervision of residents, coordinate planned activities, supervise meal preparation, respond to campus visitors, address emergencies, ensure all staff take required breaks</li> </ul>
Mental Health Clinician	Coordinate and implement treatment and services; evaluates outcome measures
Case Manager (Direct Care Staff)	Coordinates care of residents (pre-admissions, develops transition plans, provide referrals, evaluate/follow a resident's overall plan of care)
House Manager (Facility Manager)	<ul> <li>Supervision of TLCs and oversight of case managers and clinicians</li> <li>Guides daily resident schedules, flow of activities, and meals</li> <li>Works to create, sustain, and revise daily operations of the STRTP</li> <li>Assists residents with medication self-administration</li> </ul>
Program Director	Responsible for developing culturally competent policies & procedures, represents agency, ensure department goals met
Program Assistant (Support Staff)	Supports Program Director by implementing protocols, developing/planning budget, coordinates orientations/training/onboarding
Family Engagement Specialist	<ul> <li>Implements permanency-related aspect resident's case plan</li> <li>Prepares for and organizes/facilitates Child and Family Team meetings</li> </ul>

CH (2019).

## Appendix E

### **COST-BENEFIT ANALYSIS**

Cost for Utilizing TLCs For observing self-medication administration	Year 1	Year 2
Activity/Item		
Personnel		
30 TLCs	\$10,080	\$10,080
Nursing educator	\$1,248	\$1,248
Nurse Practitioner	\$2,400	\$2,400
Non-Personnel		
Learning Space (only includes rent/hr & utilities)	\$266	\$266
Food	\$1,440	\$1,440
Total Estimate Cost	\$15,434	\$15,434

Cost for Utilizing a Full-Time Home Registered Nurse for Observing Self-Medication Administration	Year 1	Year 2
Average Annual Salary for Registered Nurse in California	\$102,700	\$102,700
Total Estimate Cost	\$102,700	\$102,700

**Cost Benefit Analysis**: \$102,700 - \$15,434 = 87, 266 projected annual savings

## Appendix F

## GANTT CHART

	2020						2021											
Increasing Therapeutic Living Counselors Knowledge to Trauma Informed Approach, Self-Esteem, Internal Locus of Control and Patient centered care	L L	L	NO.	IVIAI	Anr	Ż	WeW	IVIGY		5	Че Ц	-	Mar	2	Anr		Mav	
Planning of Project																		
Aim Statement & Theme																		
Need Assessment																		
Identification of PICOT Question																		
Review of Literature																		
Business case & Cost-Benefit Analysis																		
Created Pre-Post Survey Questionnaires																		
Created Training Materials																		
Implementation of Training						P	en	dir	<b>1</b> σ									
Data Analysis & Summary of Project							en											

#### Appendix G

#### PRE-POST SURVEY QUESTIONNAIRE

#### Modified (Based on the Reference Below) Trauma-Informed Questionnaire

Center for Substance Abuse Treatment (US). Trauma-Informed Care in Behavioral Health Services. Rockville (MD): Substance Abuse and Mental Health Services Administration (US); 2014. (Treatment Improvement Protocol (TIP) Series, No. 57.) Chapter 3, Understanding the Impact of Trauma: <u>https://www.ncbi.nlm.nih.gov/books/NBK207191/</u>

#### SCORING INSTRUCTIONS: Earn one point for correct answers

	Yes =1	No=0	Scoring
Which of following are red flags for detecting commercially sexually exploited youth?			
<ul> <li>A. When a youth has a history of pregnancy, abortion, ectopic pregnancies</li> <li>B. When a youth appears intoxicated</li> <li>C. When a youth seems to be in poor physical health (evidence of skin infections, poor dentition, malnourishment)</li> <li>D. When a child displays a withdrawn, frightened, or guarded effect</li> <li>E. All the above</li> </ul>			
Does a teen who has frequent emergency room visits for physical injuries, reproductive concerns, or sexually transmitted diseases be a victim of commercial sexually exploited children?			
Does a teen who has evidence of branding or tattoos (including facial tattoos, gang-related tattoos) be a victim of CSEC?			
Do you agree that sleeping disturbances are symptoms of CSEC?			
Do you agree youth who exhibit survival behavior using anger might be a victim of CSEC?			

Do you agree youth who exhibit self-harming behaviors can be a victim of CSEC?		
Which of these behaviors are associated with survival behaviors?		
<ul><li>A. Interpersonal violence (the person has a high likelihood of being in injured),</li><li>B. Listening to music</li><li>C. Reading a book.</li><li>D. All the above</li></ul>		
Do some teen victim of CSEC have substance abuse issues?		
Which is/are social support and coping styles of a victim of CSEC?		
<ul><li>A. Survival behaviors such as being loud, running away.</li><li>B. Going for a walk</li><li>C. All the above</li><li>E. None of the above</li></ul>		
A residential home needs to have resources available to the teen such as social service, valuable information, and educational services?		
The teen has risks for self-harm, suicide, and violence?		
The health care provider needs to be contacted if teens have a plan to kill themselves.		

#### Appendix G (cont.)

#### PRE-POST SURVEY QUESTIONNAIRE

#### Modified (Based on the Reference Below) Trauma-Informed Questionnaire Answers

Center for Substance Abuse Treatment (US). Trauma-Informed Care in Behavioral Health Services. Rockville (MD): Substance Abuse and Mental Health Services Administration (US); 2014. (Treatment Improvement Protocol (TIP) Series, No. 57.) Chapter 3, Understanding the Impact of Trauma: https://www.ncbi.nlm.nih.gov/books/NBK207191/

	Yes=1	No=0	Scoring
Which of the following are red flags for detecting commercially sexually exploited youth?	Е		
<ul> <li>A. When a youth has a history of pregnancy, abortion, ectopic pregnancies</li> <li>B. When a youth appears intoxicated</li> <li>C. When a youth seems to be in poor physical health (evidence of skin infections, poor dentition, malnourishment)</li> <li>D. When a child displays a withdrawn, frightened, or guarded effect</li> <li>E. All the above</li> </ul>			
Does a teen who has frequent emergency room visits for physical injuries, reproductive concerns, or sexually transmitted diseases be a victim of commercial sexually exploited children?	Yes		
Does a teen who has evidence of branding or tattoos (including facial tattoos, gang-related tattoos) be a victim of CSEC?	Yes		
Do you agree that sleeping disturbances are symptoms of CSEC?	Yes		
Do you agree youth who exhibit survival behavior using anger might be a victim of CSEC?	Yes		

Do you agree youth who exhibit self-harming behaviors can be a victim of CSEC?	Yes
Which of these behaviors are associated with survival behaviors?	A
<ul><li>A. Interpersonal violence (the person has a high likelihood of being in injured),</li><li>B. Listening to music</li><li>C. Reading a book.</li><li>D. All the above</li></ul>	
Do some teen victim of CSEC have substance abuse issues?	Yes
<ul><li>Which is/are social support and coping styles of a victim of CSEC?</li><li>A. Survival behaviors such as being loud, running away.</li><li>B. Going for a walk</li><li>C. All the above</li><li>E. None of the above</li></ul>	В
A residential home needs to have resources available to the teen such as social service, valuable information, and educational services?	Yes
The teen has risks for self-harm, suicide, and violence?	Yes
The health care provider needs to be contacted if teens have a plan to kill themselves.	Yes

#### IMPROVING TEENS' ADHERENCE TO THEIR MEDICATIONS

#### Appendix H

#### PRE- POST SURVEY QUESTIONNAIRE

#### Modified (Based on the Reference Below) Self-esteem

DuBois, D. L., Felner, R. D., Brand, S., Phillips, R. S. C., & Lease, A. M. (1996). Early adolescent self-esteem: A developmental-ecological framework and assessment strategy. Journal of Research on Adolescence, 6, 541-578.

**SCORING INSTRUCTIONS**: These questions demonstrate internal and external locus of control. For the internal locus of the control circle, YES and the external locus of control circle NO. You are going to earn one point for each correct answer.

Mark yes for those elements which show high self-esteem

	Yes	No	Score
I am happy with the way I can do most things.			
I sometimes think I am a failure (a "loser").			
I am happy with myself as a person.			
I am the kind of person I want to be			
I often feel ashamed of myself.			
I like being just the way I am			
I am as good a person as I want to be			
I wish I had more things about which to be proud.			

#### Appendix H (cont.)

#### PRE- POST SURVEY QUESTIONNAIRE

#### Modified (Based on the Reference Below) Self-esteem Answers

DuBois, D. L., Felner, R. D., Brand, S., Phillips, R. S. C., & Lease, A. M. (1996). Early adolescent self-esteem: A developmental-ecological framework and assessment strategy. Journal of Research on Adolescence, 6, 541-578.

	Yes	No	Score
I am happy with the way I can do most things.	Yes		
I sometimes think I am a failure (a "loser").		NO	
I am happy with myself as a person.	Yes		
I am the kind of person I want to be	Yes		
I often feel ashamed of myself.		No	
I like being just the way I am	Yes		
I am as good a person as I want to be	Yes		
I wish I had more things about which to be proud.		No	

#### Appendix I

#### PRE- POST SURVEY QUESTIONNAIRE

#### Modified (Based on the Reference Below) Locus of Control

Julian Rotter (1966) devised a locus of control personality test to assess the extent to which an individual possesses internal or external reinforcement beliefs.

SCORING INSTRUCTIONS: Give one point for each correct answer

Are these elements of internal locus of control beliefs? For those elements consistent with an internal locus of control circle true (T).

	T=1	F=0	Score
1) I usually get what I want in life			
2) I need to be informed about news events			
3) I never know where I stand with other people			
4) I do not believe in luck or chance			
5) I think that I could easily win a lottery			
6) If I fail on a task, I tend to give up			
7) I usually convince others to do things my way.			
7) I often persuade others to do things my way			
8) People make a difference in controlling crime			
9) The success I have is mostly a matter of chance			
10) Marriage is mostly a gamble for most people			
11) People must be the master of their own fate			
12) I don't have to vote			
13) My life seems like a series of random events			
14) I never try anything that I am not sure of			
15) I earn respect and honors I receive			

16) A person can get rich by taking risks		
17) Leaders are successful when they work hard		
18) Persistence and hard work usually lead to success		
19) It is difficult to know who my real friends are.		
20) Other people usually control my life		

#### Appendix I (cont.)

#### PRE- POST SURVEY QUESTIONNAIRE

#### Modified (Based on the Reference Below) Locus of Control Answers

Julian Rotter (1966) devised a locus of control personality test to assess the extent to which an

individual possesses internal or external reinforcement beliefs.

#### SCORING INSTRUCTIONS: Give one point for each correct answer

Are these elements of internal locus of control beliefs? For those elements consistent with an internal locus of control circle true (T).

	T=1	F=0	Score
1) I usually get what I want in life	Т		
2) I need to be informed about news events		Т	
3) I never know where I stand with other people		F	
4) I do not believe in luck or chance	Т		
5) I think that I could easily win a lottery		F	
6) If I fail on a task, I tend to give up		F	
7) I usually convince others to do things my way.	Т		
8) People make a difference in controlling crime	Т		
9) The success I have is mostly a matter of chance		F	
10) Marriage is mostly a gamble for most people		F	
11) People must be the master of their own fate	Т		
12) I don't have to vote		F	
13) My life seems like a series of random events		F	
14) I never try anything that I am not sure of		F	

15) I earn respect and honors I receive	Т		
16) A person can get rich by taking risks		F	
17) Leaders are successful when they work hard	Т		
18) Persistence and hard work usually lead to success	Т		
19) It is difficult to know who my real friends are.		F	
20) Other people usually control my life		F	

#### Appendix J

#### **PRE- POST SURVEY QUESTIONNAIRE**

#### Modified (Based on the Reference Below) Patient-Centered Care Questionnaire

Jenkinson C, Coulter A, Bruster S, Richards N, Chandola T. *Patients' experiences and satisfaction with health care: results of a questionnaire study of specific aspects of care quality and safety in health care.* Qual Safe Care, PubMed, National Institute of Health 2002 Dec;11(4):335-9.

#### SCORING INSTRUCTIONS: Earn one point for each correct answer

Circle "Yes" for elements that define patient-centered care

	Yes=1	No=0	Score
The teens did not have privacy when discussing her treatment?			
The therapeutic living counselor talked in front of the teenagers as if they were not there?			
The teens did not have an opportunity to talk with a therapeutic living counselor (LTC) when she needed to do so?			
The teens were not involved in decisions made about their care			
The youth want more involvement in decision making about their care			

Sometimes, in short term residential programs, a therapeutic living		
counselor will say one thing, and another will say to the teens		
something entirely different.		
When you first arrived at the short term residential therapeutic		
program, did people working in the short term residential therapeutic		
program tell you what was going to happen to you while you were		
there?		
The youth feels safe in the short term residential therapeutic		
program?		

#### Appendix J (cont.)

#### **PRE- POST SURVEY QUESTIONNAIRE**

#### Modified (Based on the Reference Below) Patient-Centered Care Questionnaire (Answers)

Jenkinson C, Coulter A, Bruster S, Richards N, Chandola T. Patients' experiences and

satisfaction with health care: results of a questionnaire study of specific aspects of care quality

and safety in health care. Qual Safe Care, PubMed, National Institute of Health 2002

Dec;11(4):335-9.

#### SCORING INSTRUCTIONS: Earn one point for each correct answer

Circle Yes for elements that define patient-centered care

	Yes=1	No=0	Score
The teens did not have privacy when discussing her treatment?		No	
The therapeutic living counselor talked in front of the teenagers as if they were not there?		No	
The teens did not have an opportunity to talk with a therapeutic living counselor (LTC) when she needed to do so?		No	
The teens were not involved in decisions made about their care		No	
The youth want more involvement in decision making about their care	Yes		

Sometimes, in short term residential programs, a therapeutic living		NO	
counselor will say one thing, and another will say to the teens			
something entirely different.			
When teens first arrived at the short term residential therapeutic	Yes		
program, the staff told the teenagers what was going to happen to			
them while they were there			
The youth feels safe in the short term residential therapeutic program	Yes		

#### Appendix K

#### PRE- POST SURVEY QUESTIONNAIRE

#### Modified (Based on the Reference Below) Medication Adherence Questionnaire

#### Teenagers Adherence to their Medications Questionnaire: The Child & Adolescent Adherence to Medication Questionnaire" (CAAMQ)

Vasylyeva, T. L., Singh, R., Sheehan, C., Chennasamudram, S. P., & Hernandez, A. P. (2013). Self-reported adherence to medications in a pediatric renal clinic: psychological aspects. PloS one, 8(7), e69060. <u>https://doi.org/10.1371/journal.pone.0069060</u>

#### SCORING INSTRUCTIONS: Earn one point for each correct answer

What conditions demonstrate teens 'adherence to their medications? Circle Yes for medication adherence and NO for teen's non-adherence to medication regimen.

	Yes	No	Score
The teen knows the condition(s)/ illnesses she is taking medicine?			
Teen knows how many days per week, she is supposed to take her medication.			
The teen forgets to take her medicine.			
The teen is reluctant to take her medication every day.			
The medicines interfere with the teen's daily activities.			
The teen knows when to take your medicine.			

Does the teen care about what her friends and classmates think about her needing to take her medicine?	
The teen requests an alarm/ a pillbox to help her remember to take your medicine.	
Does the teen think that a better-tasting medicine would help her remember to take her medication?	
What responses demonstrated the negative attitude when you asked teens about how they feel about the need to take a lot of medicine?"	
<ul> <li>A. "I feel stressed."</li> <li>B. "I feel sick and ask why I have to take them,"</li> <li>C. "I am not normal and very sick,"</li> <li>D. "I feel like I am going to die,"</li> <li>E. "I feel like an old woman" and "Angry, I don't like it."</li> <li>F. I don't like it</li> <li>G. All the above</li> </ul>	
What responses demonstrate positive answers (Positive attitude) when asked to a teen "how do you feel about needing to take a lot of medicine	
<ul><li>A. It is for my health</li><li>B. It helps me</li><li>C. It makes me feel that I am taking care of myself</li><li>D. I do not like it, but it helps me."</li><li>E. Only A, B, and C</li><li>G. All the above</li></ul>	
17. What might help teens feel more comfortable about taking their medicines at the temporary residential program	
A. The therapeutic living counselor is not pressuring me	

<ul><li>B. Knowing that the therapeutic living understands what I am going through</li><li>C. Taking fewer pills</li><li>D. Knowing that it is temporary</li><li>E. All the above</li></ul>		
What suggestions could help remind teens to take their medicine?		
<ul><li>A. An alarm watch</li><li>B. Text messaging alarm</li><li>C. Making a habit of taking it before meals</li><li>D. All the above</li></ul>		

#### Appendix K (cont.)

#### **PRE- POST SURVEY QUESTIONNAIRE**

#### Modified (Based on the Reference Below) Medication Adherence Questionnaire (Answers)

#### Teenagers Adherence to their Medications Questionnaire: The Child & Adolescent Adherence to Medication Questionnaire" (CAAMQ)

Vasylyeva, T. L., Singh, R., Sheehan, C., Chennasamudram, S. P., & Hernandez, A. P. (2013). Self-reported adherence to medications in a pediatric renal clinic: psychological aspects. PloS one, 8(7), e69060. <u>https://doi.org/10.1371/journal.pone.0069060</u>

#### SCORING INSTRUCTIONS: Earn one point for each correct answer

What conditions demonstrate teens 'adherence to their medications? Circle Yes for medication adherence and NO for teen's non-adherence to medication regimen.

	Yes	No	Score
The teen knows the condition(s)/ illnesses she is taking medicine?	Yes		
Teen knows how many days per week she is supposed to take her medication.	Yes		
The teen forgets to take her medicine.		No	
The teen is reluctant to take her medication every day.		No	
The medicines interfere with the teen's daily activities.		No	

The teen knows when to take your medicine.	Yes		
Does the teen care about what her friends and classmates think about her needing to take her medicine?		No	
The teen requests an alarm/ a pillbox to help her remember to take your medicine.	Yes		
Does the teen think that a better-tasting medicine would help her remember to take her medication?	Yes		
<ul> <li>What responses demonstrated the negative attitude when you asked teens about how they feel about the need to take a lot of medicine?"</li> <li>A. "I feel stressed."</li> <li>B. "I feel sick and ask why I have to take them,"</li> <li>C. "I am not normal and very sick,"</li> <li>D. "I feel like I am going to die,"</li> <li>E. "I feel like an old woman" and "Angry, I don't like it."</li> <li>F. I don't like it</li> <li>G. All the above</li> </ul>	G		
What responses demonstrate positive answers (Positive attitude) when asked to a teen "how do you feel about needing to take a lot of medicine A. It is for my health B. It helps me C. It makes me feel that I am taking care of myself D. I do not like it, but it helps me." E. Only A, B, and C G. All the above	G		
17. What might help teens feel more comfortable about taking their medicines at the temporary residential program	E		

<ul> <li>A. The therapeutic living counselor is not pressuring me</li> <li>B. Knowing that the therapeutic living understands what I am going through</li> <li>C. Taking fewer pills</li> <li>D. Knowing that it is temporary</li> <li>E. All the above</li> </ul>		
What suggestions could help remind teens to take their medicine?	D	
<ul><li>A. An alarm watch</li><li>B. Text messaging alarm</li><li>C. Making a habit of taking it before meals</li><li>D. All the above</li></ul>		

## Appendix L PRE- POST SURVEY QUESTIONNAIRE FOCUS GROUPS RESULT QUESTIONNAIRE Page 1

As a Therapeutic Counselor at a Short-Term Residential Therapeutic Home, what is your level of confidence and comfort while observing girls take their medications?

Answer options	Responses	Percentages
Very comfortable		
Comfortable		
Neutral		
Uncomfortable		
Very uncomfortable		

#### Appendix L (cont.)

#### PRE- POST SURVEY QUESTIONNAIRE

#### FOCUS GROUPS RESULT QUESTIONNAIRE

#### Page 2

As a Therapeutic Counselor at a Short Term Residential Therapeutic Home, are you comfortable with playing the role of supervising, protecting, and caring for residents, including daily cooking, laundry, and ensuring the general upkeep of the facility?

Answer Options	Responses	Percentages
Strongly agree		
Agree		
Neutral		
Disagree		
Strongly disagree		

## Appendix L (cont.)

#### **PRE- POST SURVEY QUESTIONNAIRE**

## FOCUS GROUPS RESULT QUESTIONNAIRE

#### Page 3

As a Therapeutic Counselor at a Short Term Residential Therapeutic Home, what topics do you propose for a future training? Please write your suggestions below.

	Topics
1	
2	
3	

#### Appendix M

## Elements Needed to Update the Medication Room/Health Room

1. A separate folder for each CSEC individual to include a Medication Administration Record

#### (MAR)

- 2. Nonsterile gloves
- 3. Sharps disposal container
- 4. Individual dispensing medication trays for each resident with patient identification
- 5. Creation of a small library containing books that inform women about their health
- 6. Health education pamphlets holders

7. Three or four print fliers and posters. Medical director recommended websites to order flyers: Bedsider.org, CDC.org, https://teenlineonline.org/yyp/dont-think-know/, http://www.blackgirlscode.com/, and https://www.futureswithoutviolence.org/.

8. Tea, unsweetened juice, and a water container with some cucumber and fruit for taking medications.

- 9. Round table for paperwork and conversations.
- 10. A locked to secure medications and some medical equipment
- 11. Equipment for vital signs: thermometer, blood pressure machine, and stethoscope

12. A board for postings outside of the medication room. Posting can contain some tips for the week with some catchy names/words like "our bodies are for ourselves" led by residents

- 13. Tissues and aroma therapy to release stress
- 14. A clock inside of the room to promote medication administration timeliness
- 15. Occupied / Unoccupied sign on the door

Appendix N

## **POWERPOINT PRESENTATION**

(Not attached; submitted separately)

# Trauma-Informed-Patient-Centered-Care

Training



# **Topics to Cover**

- Complex Trauma
- Trauma-Informed Treatment Approach
- Internal Locus of Control
- Self-Esteem
- Patient Centered Care
- Medication Adherence



# Objectives

The therapeutic staff will:

Identify the impact of complex trauma in commercially sexually exploited children (CSEC)

- Define Trauma-Informed Treatment Approach
- Recognize the elements of locus of control
- Identify how self-esteem affects behavior
- Identify element of patient-centered care
- Identify processes that promote medication adherence



# ASK AUDIENCE DEFINITION OF COMPLEX TRAUMA



## **Complex Trauma**

#### Definition of Complex Trauma:

The impact of trauma on teens behavior is associated with disruptions across multiple domains of development (Hodgdon, Kinniburgh, Gabowitz, Blaustein, & Spinazzola 2013).

#### Definition of Complex Trauma Approach:

An approach engaging teens with history of trauma that includes acknowledging the effects of trauma, recognizing its signs and symptoms, and practicing avoiding retraumatizing (Champine et al., 2019).



Disruptions in teenage development are expressed by a range of emotional and behavioral challenges (Hodgdon et al., 2013).



# What do You See as Signs or Behaviors Related to History of Trauma?



## Symptoms of Complex Trauma

- Academic: Decreased ability to concentrate
- Behavioral or Adaptive Challenges: Runaway behavior
- Decreased ability to show affection
- Substance abuse
- Self injury: Suicidal ideation, Cutting
- Negative self-image
- Lack of impulse control
- Aggressive behavior
- Psychological disorders: Posttraumatic stress disorder (PTSD).

#### Hodgdon et al.,(2013)



# What do you think about Trauma Informed Intervention? What is it?

Discussion:



Definition:

The ability to recognize the effect that trauma plays in teens day to day lives, to create a trauma-informed culture that will promote constructive behavior in the lives of the traumatized youth (Hodgdon et al., 2013).

Staff are taught to recognize and mitigate the affects of trauma
 Is 24/7

➢Is crucial for traumatized youth who require ongoing support in their day to day lives (Hodgdon et al., 2013).



## A Trauma Informed Process

This process includes:

- Creating a validating environment
- Rebuilding secure attachments
- Normalizing behavioral expressions of distress as adaptations that youth make in the interest of surviving chronic life difficulties.
- ✤Replacing "survival behaviors" with healthy methods of coping with strong emotions, in order to promote an internal locus of control and decrease the need for external controls.

Hodgdon et al.,(2013)



## The Trauma Informed Process - Continued

- Encourage teens to think beyond today's needs so they can imagine and realize opportunities in their future.
- The residential staff need to believe that the symptoms of complex trauma can be reduced.
- Teenagers have the ability to be involved in the change process.

(Hodgdon et al., 2013)



## Validating Environment

Definition:

Making a space:

- Where both staff and teens feel safe and supported
- Where therapeutic staff debrief their emotional responses.
- Promote the use of:
  - 1) Restorative justice: Treat commercially sexually exploited children as victims (Harper 2016).
  - 2) Rapid responses: Debriefing after a critical incident
  - 3) Ongoing interventions: Smoking cessation, healthy eating, and group exercise. (Hodgdon et al., 2013)



## **Rebuilding Secure attachments**

Rebuild affection by :

Acting as the "caregiving system"

Examples:

- -The "caregiving system" affects the way that staff interpret and react to youth survivor behaviors
- --Maintaining a calm and reassuring voice.
- -Asking questions shows that you are concerned

(Hodgdon et al., 2013)



## **Rebuilding Secure Attachments - Continued**

- -Listening carefully to the youth's concerns and take them seriously
  -Paraphrasing what the youth says can help show that you are listening.
  -If emotions escalate, acknowledging them that "I can see that you're angry about the ..."
- Replacing early working models of caregivers as punitive, unavailable, and rejecting with supportive, consistent and predictable models.

(Hodgdon et al., 2013)

## Normalizing Behavioral Expressions

Ask staff to provide examples:

Discussion



## Normalizing Behavioral Expressions Continued

- Challenging behaviors are viewed as gaining control in face of overwhelming powerlessness, rather than opposing.
- Supporting alternative skills to increase teenager's sense of control and mastery.

Hodgdon et al.,(2013)



# Replacing "Survival Behaviors" with Healthy Methods of Coping with Strong Emotions

- Understanding challenging behaviors
- Reframing "bad behavior" as adaptive responses to complex trauma.
- If teens are feeling withdrawn, encourage engagement:
   Incorporate tools to engage youth.

Hodgdon et al.,(2013)

\* Ask for examples. What can staff do to engage ?



# Encourage Teens to Imagine and Realize Opportunities in their Future

Making small goals that can be accomplished in a short period of time
Weekly assignments can be given to teen, and the accomplishment of the assignment and progress are evaluated at end of each week.

Hodgdon et al.,(2013)

Other examples used by staff ?



The residential staff need to believe that the symptoms of complex trauma can be reduced.

- Why is believing important?
- Residential staff should intervene using therapeutic techniques to manage behaviors with challenging behaviors of youth and avoid being reactive.

Hodgdon et al.,(2013)

Staff provide examples:



# Teenagers have the Ability to be Involved in the Therapeutic Process.

Ask staff why youth involvement is important in the therapeutic process.



# Teenagers have the Ability to be Involved in the Therapeutic Process.

The therapeutic process decreases trauma-related symptoms.

Examples of trauma related symptoms:

Challenging behaviors Inability to focus Rule breaking behaviors Anxiety, depression

Forgetfulness

Somatic complaints

Hodgdon et al.,(2013)



## The Trauma Informed Process - Continued

- Effective management
- Consistent response
- Nonjudgmental response
- Routines and rituals

#### Hodgdon et al. (2013)



# A Therapeutic Staff- Affect Management Attitude Examples

- Nonjudgmental interactions
- Capability of recognizing and regulating your own personal emotional experience
- Provision of positive rather than reactive responses to teenage behaviors
- Modeling self awareness and self-care.
- Providing resources to support positive teenage coping behavior.
   (Hodgdon et al., 2013).



# A Therapeutic Staff- Consistent Response Examples

#### **Positive Responses**

Provides certainty and consistency in the teens' environment and with interpersonal interactions.

Models sensitivity to trauma triggers and traditional behavioral interventions

#### **Negative Responses**

- ✤Ignoring the teen
- Insincere complimenting
- Limiting time spent with the teenagers.

(Hodgdon et al., 2013).



## A Therapeutic Staff Modeling Attunement

- Provide and adapt appropriate language and behavior based on each teenager's emotional state.
- Identify and reply to the underlying emotional needs, behaviors and symptoms of each teenager.
- Recognize teens' triggers and trauma responses, and practice reflective listening approaches

(Hodgdon et al., 2013)



## **Therapeutic Staff Routines and Rituals**

- Provide routines around key trouble spots for traumatized teens, like bedtime, mealtime, studying, making their beds, cleaning etc...
- Predictability of daily tasks for both youth and staff

Hodgdon et al., (2013)



#### ≻Definition

Locus of control is the degree to which individuals believe (based on past experiences) that they, as opposed to external forces (beyond their control), have control over the outcome of events in their lives (Nazareth et al., 2016).



Locus of control is important because it:

➤Can influence someone's health behaviors, which can impact health outcomes among youth.

➤Can increase the use of healthcare resources and medication adherence

Can promote school attendance

➤Can Increase readiness of transitioning to adult medical care for teens with chronic illnesses

(Nazareth et al., 2016)





Definition:

Self-esteem is described as how much an individual appreciates and likes him/herself/them self. It is the confidence in one's own worth or abilities or self-respect (Jozefiak et al., 2017).



Teenagers develop self-esteem based on the commitment, support, trust from people around them. Moreover, they need to be trusted, given responsibility, and given the choice to be involved in decisions to enable empowerment (Greenshields, 2019).



An example of low self-esteem is the decreased perception of social acceptance and physical appearance among the adolescents.

✤A higher level self-esteem is associated with increases in comfort and happiness experienced by individuals.

Jozefiak et al., (2017)



## **Patient Centered Care**

Definition:

Includes listening to, informing and involving patients in their care.

The eight principles of patient centered care:

- 1. Respect for patient values, preferences, and express needs.
- 2. Cordination and integration of care
- 3. Information and education
- 4. Physical comfort
- 5. Emotional support and alleviation of fear and anxiety
- 6. Involvement of family and friends
- 7. Continuity and transition
- 8. Access to care

(Tzelepis et al., 2015)



### **Medication Adherence**

#### Definition

Patient centered medication adherence means:

- 1. Patient engagement
- 2. Patient takes an active role and expresses their concerns, preferences and knowledge
- 3. Patient evaluation of medication's effect
- 4. Patient reporting side effects of medications



>When youth is a partner with a decision capacity in their care delivery, there is an association with self reported medication adherence.

➤Teens with HIV who displayed greater understanding of their illnesses were more likely to report fewer missed doses in the last seven days.

Chenneville (2015)



### Adherence

Adherence to treatment can be reinforced by understanding adolescent development and including adolescents in the management of care plans (Kang, & Kim 2019).



### References

Champine, R. B., Lang, J. M., Nelson, A. M., Hanson, R. F., & Tebes, J. K. (2019). Systems Measures of a Trauma-Informed Approach: A Systematic Review. *American Journal of Community Psychology*, 64(3/4), 418–437. https://doi.org/10.1002/ajcp.12388

Chenneville, T., Clutter, M. O., Hintz, S., Walsh, A., Emmanuel, P., Lujan-Zilberman, J., & Rodriguez, C. (2015).Decisional capacity and medication adherence among youth with HIV. *AIDS Care*, 27(3), 338– 341. https://doi.org/10.1080/09540121.2014.993582



### **References - Continued**

Greenshields, S. (2019). Children and young people in care. *British Journal* of Nursing, 28(19), 1148–1149. Retrieved from <u>https://doi.org/10.12968/bjon.2019.28.19.1148</u>

Harper. R (2016). Shifting towards justice: Non-criminalization of child sex trafficking victims. *Sharedhope International*. Retrieved from https://sharedhope.org/2016/04/05/shifting-towards-justice-non criminalization-child-sex-trafficking-victims



Hodgdon, H., Kinniburgh, K., Gabowitz, D., Blaustein, M., & Spinazzola, J. (2013). Development and Implementation of Trauma-Informed
Programming in Youth Residential Treatment Centers Using the ARC
Framework. *Journal of Family Violence*, 28(7), 679–692.
<a href="https://doi.org/10.1007/s10896-013-9531-z">https://doi.org/10.1007/s10896-013-9531-z</a>

Jozefiak, T., Kayed, N., Ranøyen, I., Greger, H., Wallander, J., & Wichstrøm, L. (2017). Quality of life among adolescents living in residential youth care: do domain-specific self-esteem and psychopathology contribute? *Quality of Life Research*, 26(10), 2619–2631. https://doi.org/10.1007/s11136-017-1603-8



### **References - Continued**

Kang, M., & Kim, K. (2019). Prescribing for adolescents. Australian Prescriber, 42(1), 20–23. Retrieved from <u>https://doi.org/10.18773/austprescr.2019.004</u>

Nazareth, M., Richards, J., Javalkar, K., Haberman, C., Yi Zhong, Rak, E., Jain, N., Ferris, M., van Tilburg, M. A. L., & Zhong, Y. (2016). Relating health locus of control to health care Use, adherence, and transition readiness among youths with chronic conditions, North Carolina, 2015. *Preventing chronic disease*, 13, 1–7. https://doi.org/10.5888/pcd13.160046



### **References - Continued**

Tzelepis, F., Sanson-Fisher, R., Zucca, A., & Fradgley, E. (2015). Measuring the quality of patient-centered care: why patient-reported measures are critical to reliable assessment. Patient Preference and Adherence, 9, 831–835. https://doi.org/10.2147/PPA.S81975