Official Title: Brief Suicide Intervention for Youth in Juvenile Detention Settings

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IRB Approved Research Summary

Purpose of Study

The primary objective of this phase of the study is to develop, preliminarily evaluate, and refine procedures for the new multi-faceted intervention for trauma-informed suicide prevention (brief cognitive- behavioral and trauma-informed strategies and safety planning for youth and young adults who are suicidal and/or self-harming, as well as training of staff in trauma-informed crisis management and de- escalation strategies) for youth and young adults in juvenile detention settings.

An associated objective is to develop procedures for training staff working with youth in short-term juvenile detention settings to conduct the new intervention for reducing suicidal thoughts and behavior.

A third objective is to examine the feasibility of this trauma-informed suicide prevention intervention in terms of initial participant recruitment, counselor fidelity to the treatment model, treatment acceptability, and monitoring of adverse events in an open trial (minimum n=10, maximum n=20). This intervention will be iteratively refined during this open trial based on feedback from youth, young adults and staff, and experiences using the intervention in juvenile detention. We will also gather information regarding the presumed mechanisms of action and targeted outcomes for this intervention.

As an intervention development study, this study is not powered to test hypotheses. Rather, the purpose of this study is to demonstrate feasibility and acceptability of the intervention and procedures, and to demonstrate viability of the proof of concept.

The study is a collaboration between Duke and Wake Forest investigators, and Juvenile Justice in the NC Department of Public Safety.

Background and Significance

Background

Youth with juvenile justice involvement experience trauma at a disproportionate rate and are at increased risk for suicidal behavior and death by suicide (AACAP, 2005; Stokes et al., 2015). According to data from the Office of Juvenile Justice and Delinquency Prevention, the rates of death by suicide for youth in juvenile justice facilities are nearly three times higher than the general population of youth (Gallagher & Dobrin, 2006). Stokes et al. (2015), in a review of the literature, reported that rates of suicide ideation among youth in detention across studies ranged from 25% to 52% (for periods of time ranging from two weeks to six months), and rates of lifetime suicide attempts in detention among youth ranged from 15% to 29% across studies. In addition, youth in short-term juvenile detention settings have increased rates of a number of risk factors for suicidal thoughts and behavior such as depression, anxiety, substance abuse, conduct disorder, and traumatic experiences (Bhatta et al., 2014; Charak et al., 2019; Teplin et al., 2015).

Scott and colleagues (2015) have also reported that the rates of mental health disorders and suicide risk increase with more restrictive environments, and others have noted that detained youth are at especially high risk for suicidal behavior (Hayes, 2005; Wasserman, et.al., 2010).

Although anecdotally, detention staff report concern about how to manage non-suicidal self-injury (NSSI), considerably less is known about the prevalence of NSSI in juvenile justice settings, particularly juvenile detention. In one older study (Chowanec et al., 1991), it was found that 10% of male youth engaged in self-harm while in a Youth Development Center (longer term facility). In another study (Penn et al., 2003), 78 of 289 youth in a medium security facility were referred for additional psychiatric evaluation following screening. Thirty per cent of the referred sample reported self-harm during incarceration. NSSI also has been noted to be higher among youth with trauma exposure (Smith & Power, 2015). In addition, there are multiple functions of NSSI, but relief of stress or negative affect is a major function (Nock & Prinstein, 2005). Youth in short-term detention facilities are often at a high period of stress and distress, as they are often newly detained, do not know what to expect, and also face the uncertainties associated with pending hearings and adjudication. Indeed, in one study of 20 incarcerated individuals with histories of NSSI (Smith & Power, 2015), NSSI was described by these individuals as a coping mechanism and way to gain personal control when confronted with stress.

To date, there have been a dearth of evidence-based therapeutic interventions for youth who are suicidal and self-harming in secure settings. In the community, there have been studies of interventions such as Multisystemic Family Therapy that appear to have promise in reducing suicidal behavior and distress (Huey et al., 2004). Gatekeeper training programs (i.e., suicide prevention programs for training individuals who have contact with youth in how to recognize, intervene, and/or provide referrals for needed help) such as Question, Persuade, Refer; Applied Suicide Intervention Skills Training; and safeTALK also have been encouraged and implemented in various settings for youth with legal involvement (Stokes et al., 2015). To our knowledge, however, there is no empirical evidence documenting that these programs have reduced rates of suicidal thoughts or behavior, or NSSI in juvenile detention settings. Moreover, despite high rates of trauma exposure among detained youth, there are no trauma-informed, evidence-based interventions for suicidal or self-harming youth in juvenile detention settings to our knowledge (Bhatta et al., 2014; Charak et al., 2019).

The National Alliance on Suicide Prevention has noted that one key element for addressing prevention of suicide in juvenile secure facilities is suicide prevention training with staff (National Action Alliance for Suicide Prevention, 2013). Despite this acknowledgment, no suggestions for evidence-based programming that could be utilized within these settings were offered. Furthermore, a search of the online evidence-based practice registry that details effective and promising programs for justice-involved individuals (Crimesolutions.gov) did not identify any suicide prevention programs.

Screening (e.g., with the MAYSI-2) and other protocols (e.g., suicide watch) are often used for identifying and managing suicide risk in correctional facilities. Gallagher and Dobin (2005) reported significantly lower odds for suicide attempts in facilities that screened all youth within the first 24 hours of arrival, relative to facilities without this practice. Even when screening exists, however, there may be less than optimal linkages to further evaluation and mental health services. For example, youth who are thought to be at suicide risk may be placed on close observation while awaiting a referral for outside evaluation and possible mental health services, and there may be delays in receipt of these services. Other than monitoring youth at risk, detention staff may have little knowledge of trauma-informed practices for de-escalating crises or addressing risk and distress. Given the paucity of research on trauma-informed interventions for reducing suicidal thoughts and behaviors among detained youth, interventions are needed to address the needs of suicidal and self-harming detained youth.

One empirically validated approach that may have particular relevance for addressing the needs of this high-risk group of detained youth is SAFETY-Acute (SAFETY-A), formerly known as the Family Intervention for Suicide Prevention (Asarnow et al., 2009). SAFETY-Acute is a brief cognitive-behavioral, strength-based, developmentally nuanced, trauma-informed approach to safety planning, stabilization, and linkage to care, originally developed for emergency settings. In this intervention, the therapist works with youth and family separately and then together to identify individual and family (broadly defined) strengths; to identify feelings and triggers for these feelings, using a mood thermometer; to develop a personal plan describing warning signs, alternative actions and thoughts to reduce distress, supportive individuals, and steps that can be taken to increase safety in the home. After the intervention, the therapist has follow-up “caring contacts” with families, that include an emphasis on linkage to care. This intervention has been shown to increase linkage to treatment and to reduce suicide attempts when combined with follow-up cognitive behavioral therapy (Asarnow et al., 2011). As part of our National Center for Traumatic Stress Network Center grant, SAFETY-A has been adapted for youth who have experienced trauma (Asarnow et al., 2020) and used in emergency and acute care settings, integrated health settings, and schools.

Although this intervention approach has much promise because of its brevity, effectiveness, and emphasis on coping and reasons for living, there are several adaptations that need to be made to this trauma- informed cognitive behavioral intervention for implementation in a short-term juvenile detention setting. First, the intervention needs to have a primary emphasis on the adolescent, with reduced emphasis on families, which are often not available during times of detention. Second, for widespread implementation, it needs to be simplified so that non-mental-health trained detention staff could learn the approach and implement the intervention in a supportive, trauma-informed manner with fidelity. Third, an adaptation of the intervention needs to be developed with recognition of the reality that there is much uncertainty associated with the time of juvenile detention. In this context, detained adolescents are likely to feel out of control of their circumstances,

highly distressed, and hopeless about the future. An effective, trauma- informed intervention would not only offer listening, support, validation, and encourage safety planning and coping, but would also need to emphasize self-efficacy expectations, and reasons for living tempered with acceptance of the current situation, and help adolescents modulate distress so they do not escalate to suicidal or self-harm behaviors. Given that youth are not living with families in detention centers, an effective intervention needs to impact the present environment, namely the detention center staff, and help them to respond to youth in a way that is supportive and helps to de-escalate crises. Last, an effective intervention needs to build upon existing protocols, offering strong coordination between initial screening of risk, additional evaluation, and the on-site provision of support.

Summary of Significance

Youth in short-term juvenile detention have high rates of trauma, psychiatric disorders, and are often highly stressed by the experience of being in a secure facility and the multiple uncertainties about their future. Research highlights the high rates of suicidal thoughts and behaviors, and suggests high rates of NSSI as well in this population. Nonetheless, there are few evidence-based interventions for suicidal and self-harming youth in juvenile justice settings, particularly in juvenile detention centers. The purpose of the proposed study is to address this major need by developing and preliminarily testing an intervention targeting suicidal risk and NSSI among detained youth. The proposed intervention is an adaptation of ≠existing evidence-based interventions used with other high-risk populations to address risk for suicidal behavior and NSSI among detained youth. Detention staff will be provided with the ongoing training and support for delivering the intervention.

Design and Procedures

In this first phase of this treatment development study (in collaboration with juvenile justice staff), our team has developed an intervention and procedures to be used with youth and young adults in juvenile detention settings who are suicidal or self-harming.

The foundation of the new intervention is the SAFETY-Acute intervention, an intervention that our NCTSN Center has been disseminating for the last 5 years, in collaboration with the developer of this intervention, Dr. Joan Asarnow at UCLA. The intervention is simplified and shortened so it can be delivered by staff including paraprofessionals without specialty mental health training, e.g., Youth Counselor Technicians (YCTs). Direct care staff have the most contact with youth; they minimally either have an Associate Degree in a human services field or criminal justice, or have a high school degree or equivalency and two years of related human services experience. These staff typically have the most “face time” with the adolescents and young adults and tend to be the staff more likely to notice and respond to behavioral changes. There is a ratio of approximately 1.8 to 2.6 YCTs for every juvenile in the population. The direct care staff in detention facilities have received training in motivational interviewing, strength-based practices, incentive based behavioral management systems, and an annual in-service training in suicide prevention. They also recently received training in in trauma-informed practices and

substance use prevention by one of our team members.

When youth and young adults are identified as suicidal, the protocol in juvenile detention facilities currently is for one-to-one observation or repeated checks at brief intervals of time (e.g., every 15 minutes) until a youth and young adults can be evaluated from a contract mental health professional in the community. The goal of this project is to develop and preliminarily evaluate a brief and relatively simple and trauma-informed intervention that can be delivered by the paraprofessionals serving in these roles, so they can be working to reduce distress rather than just monitoring youth in the period prior to connecting with external mental health professionals.

The initial development of the new intervention was informed from our own clinical experiences and experiences in training clinicians throughout the country in the SAFETY-A intervention, conversations with and feedback from our colleagues in Juvenile Justice, and feedback from adult stakeholders (individuals who had experience with the juvenile detention center when younger and their families) as part of another active IRB protocol.

Two sites (Duke University School of Medicine and Wake Forest School of Medicine) are developing the intervention, will provide the training, and oversee the evaluation of the implementation of the new trauma-informed intervention. The open trial will be implemented in five to six county-run and state-run juvenile detention facilities.

The trauma-informed crisis intervention for youth and young adults has three foci: (1) encouragement of “telling of the story” of events leading up the suicidal behavior or thinking, and the context of this thinking or behavior, while promoting cultural humility; (2) safety planning, and (3) motivational approaches tailored for the juvenile detention setting, bridging a combination of acceptance of current circumstances (e.g., such as awaiting hearings and adjudication) and future-oriented thinking. The crisis intervention will be relatively brief, given the limited time that youth are in juvenile detention facilities. The crisis intervention consists of one intensive session (30-60 minutes), similar to the one-session crisis sessions developed by Asarnow et al. (2009). The initial crisis session can be followed by one to two brief follow-up sessions, lasting up to 30 minutes, with check-ins and coaching as needed.

Similar to the approach of Asarnow et al. (2009), in which youth and young adults are asked if they can name positive attributes about themselves, we draw upon the procedures used by Meichenbaum et al. (2005) of referring to the timeline, and then asking adolescents and young adults what they accomplished, or felt good about themselves, despite all that had befallen them. Lastly, similar to the elicitation of reasons for living and development of a Hope Box in other interventions (Asarnow et al., 2009; Berk et al., 2004), adolescents and young adults will be asked again to consider their timelines to date, and to begin to look forward to the future, and to envision what they would like their lives to look like, or what they would like to

accomplish or experience. Unlike youth and young adults in other treatment settings, however, these youths' and young adults hopes for the future are tempered by the current circumstances of being detained. Hence, the hopes for the future have to be framed in terms of acceptance of that over which the adolescents and young adults do not have current control, while focusing on what the adolescents and young adults do have control over. This may not only include a focus on long-term plans, but on more immediate goals such as preparation of a statement for the judge. As part of the intervention, adolescents also will be encouraged to begin to identify triggers and signs of distress, and begin to identify self-soothing strategies that can be utilized to manage distress. The staff member may suggest, and begin coaching adolescents and young adults in skills that would aid in self-regulation. Similar to other effective interventions (Brown et al., 2005), this intervention will have a primary focus on the suicide- or self-harm risk, and be transdiagnostic in recognition of the heterogeneity of suicidal youth and young adults. The intervention is anticipated to reduce risk via its impact on hope, self-efficacy, acceptance, and reduced urgency to act on suicidal thoughts.

General guidance for helping staff respond to youth and young adults in crises in the juvenile detention facility will have four foci. The first focus is education about youth and young adults who experience suicidal and self-harm thoughts and behavior, drawing from educational materials developed for emergency care settings by Asarnow et al. (2009). The second focus of the intervention will be on listening and validation of adolescent and young adults distress (building on training the staff have already received in motivational interviewing). The third focus on the intervention will be on the use of trauma-informed approaches for working with youth and young adults, emphasizing for example safety in the interaction, a sense of caring and collaboration, a focus on strengths, sensitivity to past histories of trauma, and leading with cultural humility. The fourth focus is on encouraging staff to monitor and moderate their own emotional reactions with youth and young adults (using the "window of tolerance" approach), as an approach to further de-escalate crises.

In addition to the intervention with the youth and young adults in the juvenile detention facility after release from the facility, there will be an attempt to have at least two “caring contact” phone calls with the caregivers of youth and young adults. These brief phone calls (~10 minutes) will be used to check in with caregivers about the transition home, discuss safety in the home and community, and assess linkage to treatment. These caregiver caring contacts will be made by a clinical staff member within the facility (or if clinical staff are unavailable, research staff) within the month after release.

An open trial with an initial series of cases will be initiated at one juvenile detention facility. Experiences with these cases will help us to evaluate the ability of the detention staff to implement the intervention as intended, to examine the usability and helpfulness of the training, to identify barriers to implementing the intervention, and to identify unanticipated scenarios that develop in interactions with the youth and

young adults. The treatment development process is iterative, and based on feedback and experiences with the intervention with the open cases, the manual and procedures, inclusion and exclusion criteria for the intervention, and assessment battery and approaches will be continually refined and co-created with our juvenile justice colleagues.

We will conduct voluntary focus groups following initial implementation from trained staff members to gain information about their experiences with the SAFETY-A-JJ intervention. We will discuss their perspectives on the helpfulness of the intervention, challenges in using it, how it has changed their usual practice and their suggestions for further refining it. We will use a verbal consent using a script, will not be collecting any identifying information about participants and individual responses will be kept confidential. Notes will be taken during the focus group and stored in Duke PACE. Notes without identifying information will only be shared with the research team, our partners in Juvenile Justice and the funders upon request. There will be no compensation for participation.

We will use a checklist via Qualtrics that will be completed anonymously by trained staff members once a participant has enrolled in the intervention. The checklist will contain the list of assessments and intervention components that are completed according to the protocol. Responses will be stored in Duke PACE, will not contain any PHI or be linked to any staff members.

We will use an anonymous survey to collect demographic information from staff trained in the intervention via Qualtrics. We will collect data such as age, gender, race, work and education experience. We will also assess perceived knowledge and confidence about working with young people who are suicidal in juvenile detention prior to and after the training. Responses will be stored in Duke PACE, will not contain any PHI or be linked to any staff members.

Assessment Procedures

Assessment of Suicidal Thoughts and Behaviors, and NSSI when Youth are having Crises

Adolescent history of suicidal behaviors (suicide attempts, interrupted suicide attempts, aborted suicide attempts) prior to and during the juvenile detention are briefly assessed with selected queries from the Columbia –Suicide Severity Rating Scale (C-SSRS; Posner et al., 2011). The validity of the C-SSRS has been demonstrated in several studies (Posner et al., 2011). NSSI will be assessed with a question from the reliable and valid Self- Injurious Thoughts and Behaviors Interview; SITBI; Nock et al., 2007). The measures of suicidal behavior and NSSI have been recommended for assessment of self-harm behavior by expert consensus and included in the PhenX Toolkit (Barch et al., 2016).

Other Assessments when Youth are having Crises

To assess possible mechanisms, four brief assessments regarding self-efficacy to refrain from suicidal behavior, hope and reasons for living, acceptance, and

intensity of urges to act on suicidal thoughts are completed before and after the intervention, at one and two weeks after the initial assessment (if youth are still in the juvenile detention facility), and at the follow-up. Self-efficacy to refrain from suicidal behavior and confidence in ability to follow a safety plan is assessed with the Self-Assessed Expectations of Suicide Risk Scale (assessing confidence in not attempting suicide, confidence in keeping oneself from attempting suicide, and confidence in ability to tell someone if feeling suicidal; Czyz et al., 2016) and an item assessing confidence in ability to use a safety plan if someone has thoughts about suicide (Czyz et al., 2019). These items were developed specifically for youth. In addition, hope and intensity of suicidal urges are assessed with items developed by Asarnow and colleagues (unpublished) for a pilot study of a version of the SAFETY-A intervention. Acceptance is assessed with two questions developed for specifically for this study for the specific context of juvenile detention incarceration. In addition, we assess three other domains: connection to others in the facility, intent to act on suicidal thoughts, and general distress. Each of these assessments are completed via Qualtrics Survey (or are completed via paper form, with the data subsequently entered onto the Qualtrics survey by staff). These assessments are collected when the youth or young adult is thought to be at risk for suicidal or self-harm behaviors, immediately following the intervention (for youth and young adults receiving the new intervention only), one and two weeks after the initial assessment, and at the two-month follow-up. These assessments are completed via Qualtrics survey (or via paper form, with the responses subsequently entered onto the Qualtrics survey by staff) when the youth or young adult is in a juvenile detention facility and completed by phone with an assessor after release. If youth and young adults have difficulty reading or request assistance, the questions can be read to the youth and young adults and the responses on the survey completed by the direct care staff.

Within-Facility Follow-Up, and Two-Month Following Release Follow-Up Assessments

Seven and fourteen days after the intervention, the youth and young adults are re-assessed to evaluate changes since the identification of suicide/self-harm risk in the outcome. Measures of current suicidal thoughts, and suicidal and self-harm behavior since the identification of suicide risk, as well as assessments in each of the areas above (same questions) will be administered.

If a youth or young adults is released or transferred to another juvenile detention facility or another facility for mental health purposes without notice, we will attempt to contact the family or counselors at the new facility, respectively, to administer measures by phone. The only exception to this is if a youth or young adults is transferred to a more secure facility due to sentencing. In this case, no further attempt will be made to contact the participant. Prior to discharge, we collect information from youth and young adults regarding multiple methods for follow-up contact, including names of family members (e.g., grandparents), family friends, etc. who would be able to help us locate them in case of a move.

Follow-up phone assessments occur with youth and young adults and one of their caregivers two months after discharge, at which time most youth and young adults

are still involved with the juvenile justice system. As the purpose of the follow-up assessments is to examine adjustment and service use after discharge, youth and young adults who are transferred to other more secure facilities because of sentencing are not followed (approximately 8% of the total population in the year 2018). However, youth and young adults transferred to a different juvenile detention facility or released to a mental health residential program or group home are followed. Follow-up assessments of suicidal thoughts and behaviors, and NSSI are assessed with the same measures used at baseline (except the C-SSRS and SITBI item will reference the time since discharge). In the follow-up assessments, questions regarding suicidal and self-harm behavior are asked to both the youth, young adults and the parents, although our primary emphasis will be on youth and young adult reports for comparison to reports while in detention. Using items previously described, we also assess self-efficacy, hope, intensity of urges to act on suicidal thoughts, and acceptance, as well as intent to act on suicidal thoughts, connection to staff, and general distress.

Questions from the reliable semi-structured interview-based Child and Adolescent Services Assessment- Parent Interview-Version 5.0 (CASA; Ascher et al., 1996; Burns et al., 2008) are used to assess duration and frequency of adolescent involvement with specialty mental health services (therapists, psychiatrists, etc.) and any use of emergency services following discharge from the detention facility. These questions will be administered by an assessor in a phone interview.

Assessment of Feasibility, Acceptability, and Safety of the Intervention

Feasibility is assessed in five ways: (1) rates of recruitment, (2) rates of retention (and reasons participants cite for withdrawing from the study), (3) time to complete assessments, (4) time to complete the intervention, and (5) ability of staff to deliver the intervention with fidelity. Fidelity is assessed indirectly by staff completing checklists reporting which aspects of the new intervention were delivered in the crisis situation. So it is clear that this is not an evaluation of staff, but of the intervention, staff will be asked to not provide their names on these checklists. Adverse events are documented by juvenile detention facilities with access to health records, and also via our pre-discharge and follow-up assessments when youth are asked about suicidal and self-harm behaviors. Acceptability is assessed via the Client Satisfaction Questionnaire (Attkisson & Greenfield, 1999) administered at the two-month assessment. At this assessment, exit interviews are also conducted to gather qualitative information about perceptions of the intervention, aspects of the therapy that were most helpful, the skills or techniques that were most and least used, and suggestions for modifying the treatment.

Overview of Procedures in the Open Trial

All families of all youth and young adults entering the juvenile detention facilities are asked to sign the consent for the study, and youth and young adults will provide assent or consent, following procedures outlined in the Human Subjects section, regardless of their suicide status. This approach ensures that we do not have to

request consent and assent during a period of crisis and acute suicidality. Data are only collected from participants who both receive the intervention because of their acute suicide risk and consent/assent to our use of the data for research purposes and the additional follow-up assessments. The new intervention is implemented with all youth and young adults felt to be at risk for suicidality as the new standard of care in facilities (in the open trial) regardless of consent/assent, but data are only retained for youth, young adults and families who consent/assent to the research evaluation.

As described previously, the assessments are integrated with the new intervention. The assessment battery should take no more than 20-30 minutes. It is explained to youth and young adults that completion of this brief battery will help us to better understand the extent and nature of their distress so we can better help them. Indeed, the staff member administering the intervention may refer back to these questionnaires during the sessions with the detainee. The answers to assessment questions are entered into encrypted tablet computers. If youth and young adults have difficulty with reading, the measures a read to him/her by YCTs or other staff.

For youth and young adults receiving the new intervention, the initial crisis session is scheduled to last approximately 45 minutes but may last longer. A second session of up to 30 minutes may occur one day following the initial evaluation, or later on the first day if the youth or young adults are still significantly distressed following the initial session. This can be followed by brief check-ins and a third session if necessary (up to 30 minutes) with the patient to validate distress, and encourage or coach the young person in coping skills or use of acceptance strategies.

Please note that staff members will already be spending additional time with youth and young adults because of their suicide watch or observation status once they are considered to be at risk.

Consistent with an effectiveness approach, the intervention is delivered by direct care staff at the juvenile detention facilities who have received training in the intervention.

For youth and young adults at both the intervention and comparison facilities, they will receive a follow-up assessment at 7 and at 14 days after the initial intervention, with an identical battery to that administered earlier. This assessment, when possible, is administered by a nurse or Health Services Coordinator or other staff member other than the staff member who delivered the intervention, to reduce reactivity. If the youth or young adult is discharged without notice, this assessment is conducted by phone.

Juvenile detention facilities will share information about the clinical needs of youth and young adults with Court Counselors, who in turn will remain in contact with families after discharge. They will help facilitate needed mental health treatment, and problem-solve or help remove barriers to following through with treatment recommendations.

Using contact information provided by youth and young adults, or working with the Court Counselors, assessors will contact families two months after discharge for follow-up assessments. While being blind to condition, assessors in these phone assessments will assess suicidal thoughts, suicidal behaviors and NSSI, treatment involvement, and use of emergency services following discharge from the juvenile detention facility will be assessed. If a youth or young adults are found to be at risk or to have engaged in suicidal behavior or NSSI during this assessment, assessors will discuss safety in the home, provide them with numbers for resources (e.g., suicide prevention lifeline, crisis text line), or in the case of imminent risk, encourage them to call 911 or bring their youth or young adult to the emergency department if needed (or the assessors can petition the court for involuntary commitment to the hospital, although every attempt will be made to avoid this step). Information also is shared with Court Counselors, so they can arrange appropriate care, and share this information with treatment providers. Parents or caregivers (but not youth or young adults) will receive remuneration ($30) for the follow-up assessments.

Data Quality and Analyses

A Qualtrics system is used for data entry to minimize chances of data recording error. In the juvenile detention facility, the youth may themselves directly enter responses to questions via Qualtrics on tablet computers. Alternatively, at the discretion of particular sites, youth may enter responses on paper forms, and their responses can be entered into tablet computers by direct care staff for logistic ease within the juvenile detention facilities. At the follow-up assessment, the data are entered by the interviewing research clinician. Data are encrypted during transit and then encrypted at rest. The data management and entry system with logic checks are developed using a relational database program, such as Paradox or Access. The data are stored on a secure network that is backed up on a daily basis.

Direct Care Staff Feedback

Direct Care staff including Youth Counselor Technicians who administer the intervention will be invited to provide feedback via virtual focus groups prior to implementing the intervention, and two months after beginning to implement the intervention. Participation in these feedback sessions will be optional, data will be kept confidential, and these staff members provide consent prior to the focus groups.

From transcribed interviews or focus group sessions, a coding scheme will be developed to identify and explore both broad and complex or specific themes. This process will entail examining the range of specific content as well as frequency of mention. After a coding system is developed, research assistants will assist in coding of transcripts for themes. Management, sorting, and linking of themes will be aided by NVivo software.

Acceptability, Feasibility, Safety

The feasibility and safety of the intervention are assessed via rates of recruitment

and retention, monitoring of staff fidelity to the protocol, monitoring of adverse events, time involved in completing assessments, and time involved in the intervention. Fidelity is assessed indirectly by staff completing checklists reporting which aspects of the new intervention were delivered in the crisis situation. So it is clear that this is not an evaluation of staff, but of the intervention, staff will be asked to not provide their names on these checklists. Acceptability is assessed qualitatively via exit interviews, and quantitatively via Consumer Satisfaction Questionnaire. As such, safety, acceptability, and feasibility data are descriptive and mostly qualitative and do not require inference-testing analyses.

Selection of Subjects

We will obtain consent and assent all youth and young adults entering the targeted juvenile detention facilities who are (a) English speaking; (b) at least 13 years of age or older and 18 years or younger; (c) without evidence from school or other records of intellectual disability; (d) without evidence of active psychosis, (e) not wards of the state, and (f) have parents/guardians who consent to participation in the study. However, data only are collected for youth and young adults who have suicidal crises and for whom there is consent/assent to use these data for research purposes and for follow-up assessments. In addition, for consent in to the study, (g) caregivers will need to be able to understand English.

For inclusion in the open trial (minimum n=10, maximum n=20), youths and young adults and families not only need to have provided consent and assent, but also need to be reporting elevated suicide ideation, suicidal behavior, or NSSI (defined below).

Youth, young adults and parents/guardians will be able to provide consent/assent more than once if the youth is re-admitted to the same or a different facility and the youth or young adult did not receive the intervention and did not contribute data during an earlier stay. We will be able to ascertain whether a youth or young adult has inadvertently contributed data twice as a result of re-admissions because we will collect identifying information including names, birthdates, and addresses, which can be cross-checked.

Five to six juvenile detention facilities operated by counties or by the state of North Carolina will serve as implementation sites for the open trial.

Youth and young adults may be identified as appropriate for the study assessments (and intervention if at an implementation sites) because of elevated suicide ideation, suicidal behavior, or NSSI in the last month, determined in one of four ways. First, when youth and young adults first enter juvenile detention, or after major life events (including adjudication), they are administered a screening questionnaire by staff, the Massachusetts Youth Screening Instrument – Version 2 (MAYSI-2; Grisso et al., 2001). The MAYSI-2 has five questions on the suicide ideation scale, asking about suicidal intent and hopelessness in the last few months. Nationally, a little under one in five youth admitted to juvenile detention facilities will score above an identified cut-

off (the “Caution” cut-off) on the suicide ideation scale. Because the MAYSI-2 is known to be associated with false positives, a second level of screening questions (“Second Screen”) is used to determine if the youth or young adult is currently at risk. Second, at some juvenile detention facilities, youth and young adults will be administered the Columbia Suicide Severity Rating Scale as a screen upon admission. Based on answers to these questions, youth and young adults will be identified as having elevated suicidal ideation, or recent suicidal behavior or NSSI. Third, youth and young adults may self- report or be noted by juvenile detention staff to have suicidal thoughts or behavior, or to have engaged in NSSI. Fourth, if a youth or young adult has been identified as being at risk for suicide before being admitted to the detention facility, the community staff member (usually a juvenile Court Counselor) will share this information with the Director of the secure facility, and that youth or young adult will be considered on suicide watch, and therein eligible for participation in the assessments (and if at implementation site, the intervention).

For purposes of the inclusion criteria, suicidal behaviors for purpose of this study refer to suicide attempts, interrupted suicide attempts, or aborted suicide attempts, and will be assessed with selected queries from the Columbia – Suicide Severity Rating Scale (C-SSRS; Posner et al., 2011). Suicide attempts are defined as a potentially self-harmful act associated with at least some intent to die (Crosby et al., 2011; O'Carroll et al., 1996). Aborted suicide attempts (Barber et al., 1998) are occurrences in which an adolescent or young adult makes preparations for attempting suicide, but just prior to making the attempt, decides to not to follow through the act (i.e., the attempt is self-interrupted). Interrupted suicide attempts (Steer et al., 1988) refer to occurrences in which adolescents or young adults are preparing to attempt suicide, but the behavior is interrupted by external circumstances before it is initiated.

Suicide ideation is defined as thoughts of suicide, regardless of plan or intent (O’Carroll et al., 1996). Suicide ideation is assessed on the C-SSRS and with an item assessing intensity of urges to act on suicidal thoughts integrated with the intervention.

NSSI refers to non-socially sanctioned self-injurious behavior that is not associated with intent to kill oneself. NSSI will be measured with a question from the Self-Injurious Thoughts and Behaviors Interview (SITBI; Nock et al., 2007). Youth and young adults who report any NSSI in the week prior to admission to juvenile detention, or while in juvenile detention will be eligible for study participation.

Youth and young adults can only be enrolled once in this study. We will be able to ascertain whether a youth or young adult has inadvertently been enrolled twice because of the identifying information we collect including names and birthdates, which can be cross-checked.

<u>Subject Recruitment and Compensation</u>

1. All demographic groups at the state juvenile detention facilities are eligible to

participate in the study. Please note that the populations in these juvenile detention facilities include disproportionate proportions of individuals in minority racial and ethnic groups. All custodians of youth and young adults admitted to juvenile detention and youth and young adults admitted to these facilities themselves are asked to consent/assent to the study. The study is presented to families, youth and young adults by the Health Services Coordinator or another designee that does not have direct control over youth and young adults to prevent coercion.

2. We currently do not enroll wards of the state. If we decide to enroll wards of the state at a later time, we will submit an amendment requesting this addition to the protocol.
3. No DUHS patients are recruited.
4. Parents and caregivers are compensated $30 for follow-up assessments administered at two months following discharge. Youth and young adults are not monetarily compensated as per state regulations

Subject's Capacity to Give Legally Effective Consent

Youth and young adults who are known or suspected at the time of admission to the juvenile detention facility to not have capacity to assent to the study, or are reported by caregivers to not have this capacity (e.g., due to intellectual disability) are not asked to assent to the study.

Risk/Benefit Assessment

The primary risks in this study are the discomfort that may occur in discussing one's emotional well-being, particularly related to the subject of suicide and self-harm. The evaluation may lead to increased monitoring for safety because of additional information collected pertaining to risk. In addition, a risk for participation of caregivers may also be discomfort experienced by discussing the suicidal behavior or other emotional or behavior problems of youth and young adults. Another risk is the vulnerability and potential for unintentional coercion for participation in the juvenile-justice population. Lastly, potential risks also include those which are normally seen in clinical practice and clinical research and include the possible violation of confidentiality, and the risk that the participation may not benefit, or may have worsened distress, despite the new intervention.

As for benefits, all youth and young adults participating in this study will have the opportunity for direct benefit (decreased distress, increased support and monitoring, increased self-efficacy, greater acceptance and reasons for living, reduced urges for self-harm) from participation in this intervention that is designed to be therapeutic. There are no current evidence-based treatments for this population of which we are aware.