

Final Progress Report for Research Projects Funded by Health Research Grants

Instructions: Please complete all of the items as instructed. Do not delete instructions. Do not leave any items blank; responses must be provided for all items. If your response to an item is “None”, please specify “None” as your response. “Not applicable” is not an acceptable response for any of the items. There is no limit to the length of your response to any question. Responses should be single-spaced, no smaller than 12-point type. The report **must be completed using MS Word**. Submitted reports must be Word documents; they should not be converted to pdf format. Questions? Contact Health Research Program staff at 717-783-2548.

1. **Grantee Institution:** Treatment Research Institute
2. **Reporting Period (start and end date of grant award period):** 1/1/2013 – 6/30/2014
3. **Grant Contact Person (First Name, M.I., Last Name, Degrees):** Rosalyn L. Weinstein
4. **Grant Contact Person’s Telephone Number:** 215-399-0980
5. **Grant SAP Number:** 4100062222
6. **Project Number and Title of Research Project:** Screening, Treating, and Advising Aging-out Teens (STAAT)
7. **Start and End Date of Research Project:** 1/1/2013 – 6/30/2014
8. **Name of Principal Investigator for the Research Project:** Övgü Kaynak, PhD
9. **Research Project Expenses.**

9(A) Please provide the total amount of health research grant funds spent on this project for the entire duration of the grant, including indirect costs and any interest earned that was spent:

\$175,216

9(B) Provide the last names (include first initial if multiple individuals with the same last name are listed) of **all** persons who worked on this research project and were supported with health research funds. Include position titles (Principal Investigator, Graduate Assistant, Post-doctoral Fellow, etc.), percent of effort on project and total health research funds expended for the position. For multiple year projects, if percent of effort varied from year to year, report in the % of Effort column the effort by year 1, 2, 3, etc. of the project (x% Yr 1; z% Yr 2-3).

Last Name, First Name	Position Title	% of Effort on Project	Cost
Kaynak	Principal Investigator	11% Yr1; 3% Yr 2	\$6,915
Meyers	Co-Investigator	12% Yr 1; 43% Yr 2	\$35,160
Benishek	Clinical Supervisor	62% Yr 2	\$25,620
Dwornitski	Peer Mentor	3% Yr 2	\$1,093
Bristol	Peer Mentor	3% Yr 2	\$1,085
Garwood	Peer Mentor	2% Yr 2	\$632
Rottinger	Peer Mentor	1% Yr 2	\$342
Thompson, C	Peer Mentor	1% Yr 2	\$444
Thompson, A	Peer Mentor	1% Yr 2	\$325
Messina	Consultant	18.75 hours Yr 2	\$750
Corbett	Consultant	8 hours Yr 2	\$320
Geary	Project Manager	7% Yr 2	\$3,648
Camilleri	Regulatory Manager	6% Yr 1; 38% Yr 2	\$16,700
Virata	IT Specialist	3% Yr 1; 10% Yr 2	\$4,600

9(C) Provide the names of **all** persons who worked on this research project, but who *were not* supported with health research funds. Include position titles (Research Assistant, Administrative Assistant, etc.) and percent of effort on project. For multiple year projects, if percent of effort varied from year to year, report in the % of Effort column the effort by year 1, 2, 3, etc. of the project (x% Yr 1; z% Yr 2-3).

Last Name, First Name	Position Title	% of Effort on Project
Stone, Steven	Volunteer	30% Yr 1
Kolwicz, Thaddeus	Research Assistant	5% Yr 2
Winters, Ken	Consultant	24 hours Yr 2

9(D) Provide a list of **all** scientific equipment purchased as part of this research grant, a short description of the value (benefit) derived by the institution from this equipment, and the cost of the equipment.

Type of Scientific Equipment	Value Derived	Cost
None		

10. Co-funding of Research Project during Health Research Grant Award Period. Did this research project receive funding from any other source during the project period when it was supported by the health research grant?

Yes _____ No X _____

If yes, please indicate the source and amount of other funds:

11. Leveraging of Additional Funds

11(A) As a result of the health research funds provided for this research project, were you able to apply for and/or obtain funding from other sources to continue or expand the research?

Yes X _____ No _____

If yes, please list the applications submitted (column A), the funding agency (National Institutes of Health—NIH, or other source in column B), the month and year when the application was submitted (column C), and the amount of funds requested (column D). If you have received a notice that the grant will be funded, please indicate the amount of funds to be awarded (column E). If the grant was not funded, insert “not funded” in column E.

Do not include funding from your own institution or from CURE (tobacco settlement funds). Do not include grants submitted prior to the start date of the grant as shown in Question 2. If you list grants submitted within 1-6 months of the start date of this grant, add a statement below the table indicating how the data/results from this project were used to secure that grant.

A. Title of research project on grant application	B. Funding agency (check those that apply)	C. Month and Year Submitted	D. Amount of funds requested:	E. Amount of funds to be awarded:
Adapting SBIRT for Aging-out Foster Care Adolescents	<input type="checkbox"/> NIH <input type="checkbox"/> Other federal (specify: _____) <input checked="" type="checkbox"/> Nonfederal source (specify: Hilton Foundation)	September 2013	\$1,485,088	\$0

	<input type="checkbox"/> NIH <input type="checkbox"/> Other federal (specify: _____) <input type="checkbox"/> Nonfederal source (specify: _____)		\$	\$
	<input type="checkbox"/> NIH <input type="checkbox"/> Other federal (specify: _____) <input type="checkbox"/> Nonfederal source (specify: _____)		\$	\$

11(B) Are you planning to apply for additional funding in the future to continue or expand the research?

Yes X No _____

If yes, please describe your plans:

We plan to explore the feasibility of implementing such a program in other counties given the difficulties encountered in Philadelphia. We will assess whether difficulties are county-, state-, or system-specific. If similar roadblocks are encountered and resolution of such remains tremendously time consuming, such a program may not be feasible despite its need. As we move forward, we will continue to explore time-sensitive ways to address the myriad of barriers to such a program (e.g., consent from un-involved biological parents if teenagers are in out-of-home placements, engagement of caseworkers).

12. Future of Research Project. What are the future plans for this research project?

As mentioned above, additional feasibility testing needs to be further explored. We are in discussion with another county vis-à-vis interest, and to identify up-front, the potential barriers to implementation. If it appears that we have a partner, we will apply for NIH R21, R34, or PCORI funding.

13. New Investigator Training and Development. Did students participate in project supported internships or graduate or post-graduate training for at least one semester or one summer?

Yes _____ No X _____

If yes, how many students? Please specify in the tables below:

	Undergraduate	Masters	Pre-doc	Post-doc
Male				
Female				
Unknown				
Total				

	Undergraduate	Masters	Pre-doc	Post-doc
Hispanic				
Non-Hispanic				
Unknown				
Total				

	Undergraduate	Masters	Pre-doc	Post-doc
White				
Black				
Asian				
Other				
Unknown				
Total				

14. Recruitment of Out-of-State Researchers. Did you bring researchers into Pennsylvania to carry out this research project?

Yes _____ No _____

If yes, please list the name and degree of each researcher and his/her previous affiliation:

15. Impact on Research Capacity and Quality. Did the health research project enhance the quality and/or capacity of research at your institution?

Yes _____ No _____

If yes, describe how improvements in infrastructure, the addition of new investigators, and other resources have led to more and better research.

This health research project enabled us to develop a regulatory roadmap for conducting research within the Philadelphia child welfare system (e.g., necessary legal and departmental approvals) which: 1) increased knowledge within our regulatory infrastructure vis-à-vis IRB and associated human subjects protection in a youth population not previously studied; 2) increased knowledge within the larger research community with respect to associated human subjects protection among youth in out-of-home placement; and 3) will position us to

interface with other counties in time-sensitive ways. Combined, this has the possibility to reduce regulatory board, investigator, and recruitment site burden when starting this work.

Second, the Pennsylvania Recovery Organization - Achieving Community Together (PRO-ACT), a grassroots advocacy and recovery support organization that strives to ensure the availability of recovery support services, worked with us to identify young people in recovery who had participated in their recovery coaching training to serve as our peer recovery specialists. Given the relative dearth of such individuals in the age group we were interested in recruiting, PRO-ACT applied for and received a grant to address this lack of peer paraprofessionals for adolescents and young adults. This will not only increase the infrastructure of another organization, but it will also increase our capacity to recruit such staff for future projects.

Third, Dr. Lois Benishek, TRI Behavioral Scientist and licensed psychologist, assisted with the development and piloting of the intervention. Her substance use treatment experience coupled with her expertise developing psycho-educational and clinical interventions led to a solid intervention prototype and increased her interest in this subject population.

Fourth, it was apparent during developmental and pilot work that our wellness focus was an appropriate one, but that we needed to more comprehensively infuse healthy eating and exercise into the intervention content. In this way, the intervention could possibly apply to a larger population of youth and to a larger wellness profile.

Taken together, this award increased internal and external regulatory and investigator capacity to perform this work and apply for other funding.

16. Collaboration, business and community involvement.

16(A) Did the health research funds lead to collaboration with research partners outside of your institution (e.g., entire university, entire hospital system)?

Yes___ X _____ No___ _____

If yes, please describe the collaborations:

As mentioned above, we worked with PRO-ACT to identify young people in recovery who had participated in their recovery coaching training to serve as our peer recovery specialists. Given the relative dearth of such individuals in the age group we were interested in recruiting, PRO-ACT applied for (and we submitted a letter of support) and received a grant to address this lack of peer paraprofessionals for adolescents and young adults. This will not only increase the infrastructure of another organization, but it will also increase our capacity to recruit such staff for future projects.

16(B) Did the research project result in commercial development of any research products?

Yes _____ No X _____

If yes, please describe commercial development activities that resulted from the research project:

16(C) Did the research lead to new involvement with the community?

Yes X _____ No _____

If yes, please describe involvement with community groups that resulted from the research project:

As a result of the work undertaken with this funding, TRI developed a new working relationship with a foster care program associated with NorthEast Treatment Centers (NET). NET is a non-profit, licensed and accredited behavioral health and service organization that is housed within Philadelphia's Department of Human Services. They remain very interested in this work and expressed interest in future involvement.

17. Progress in Achieving Research Goals, Objectives and Aims.

List the project goals, objectives and specific aims (as contained in the grant agreement). Summarize the progress made in achieving these goals, objectives and aims for the period that the project was funded (i.e., from project start date through end date). Indicate whether or not each goal/objective/aim was achieved; if something was not achieved, note the reasons why. Describe the methods used. If changes were made to the research goals/objectives/aims, methods, design or timeline since the original grant application was submitted, please describe the changes. Provide detailed results of the project. Include evidence of the data that was generated and analyzed, and provide tables, graphs, and figures of the data. List published abstracts, poster presentations and scientific meeting presentations at the end of the summary of progress; peer-reviewed publications should be listed under item 20.

This response should be a DETAILED report of the methods and findings. It is not sufficient to state that the work was completed. Insufficient information may result in an unfavorable performance review, which may jeopardize future funding. If research findings are pending publication you must still include enough detail for the expert peer reviewers to evaluate the progress during the course of the project.

Health research grants funded under the Tobacco Settlement Act will be evaluated via a performance review by an expert panel of researchers and clinicians who will assess project work using this Final Progress Report, all project Annual Reports and the project's strategic plan. After the final performance review of each project is complete, approximately 12-16 months after the end of the grant, this Final Progress Report, as well as the Final Performance Review Report containing the comments of the expert review panel, and the grantee's written response to the Final Performance Review Report, will be posted on the CURE Web site.

There is no limit to the length of your response. Responses must be single-spaced below, no smaller than 12-point type. If you cut and paste text from a publication, be sure symbols print properly, e.g., the Greek symbol for alpha (α) and beta (β) should not print as boxes (\square) and include the appropriate citation(s). DO NOT DELETE THESE INSTRUCTIONS.

Funding for Screening, Treating, and Advising Aging-out Teens (STAAT) was made available on 03/21/2013 providing us with nine months to complete the study. After review of the study timeline, we requested a no-cost extension which was approved by the state on 5/28/2013. The revised end date for the study was June 30, 2014.

Research activities during the entire project included: Aim 1. Develop an intervention for adolescents who are between the ages of 15-18 years and are in the process of aging out of the foster care system that: 1) identifies health compromising behaviors particularly substance abuse and targets it for intervention; 2) pairs youth with Certified Peer Recovery Counselors (CPRCs) to provide overall social support, support for abstinence, and linkages with pro-social activities. Aim 2. Develop a detailed implementation protocol with implementation fidelity measures in order for Aim 3/Phase 3 to be carried out to include intervention and manual development and associated staff training. Aim 3. Pilot the intervention according to the implementation protocol, assess the degree to which it is implemented with fidelity, examine its feasibility with the staff and participant population, and collect preliminary efficacy data on substance use, social support, self-efficacy, and overall well-being outcomes. Data will be collected at baseline, post-intervention, one month post-intervention, and three months post-intervention, including youth perspective on the intervention itself.

Our protocol received initial approval by the Treatment Research Institute's IRB prior to the submission of this grant to the Pennsylvania Department of Health/PDH (approved 11/13/12). This approval was granted with the understanding that our recruitment and data collection materials would need to be approved pending funding from the PDH. These materials were submitted to the TRI IRB on June 26, 2013 and approved on November 25, 2013 after making the requested revisions. As you will read, funding provided as a result of the Tobacco Settlement Act resulted in a manualized intervention poised for additional investigation.

Aim 1 was Achieved. Develop an intervention for adolescents who are between the ages of 15-18 years and are in the process of aging out of the foster care system that: 1) identifies health compromising behaviors particularly substance abuse and targets it for intervention; 2) pairs youth with Certified Peer Recovery Counselors (CPRCs) to provide overall social support, support for abstinence, and linkages with pro-social activities.

Aim 1.1 - identifies health compromising behaviors particularly substance abuse and targets it for intervention - was achieved.

Literature Reviews Associated with Intervention Development: We conducted literature reviews on four related areas of research in order to develop the initial drafts of our

intervention sessions. The literature reviews focused on screening and brief interventions with at-risk youth; adolescent alcohol and other drug use in general and within the foster care system; psychosocial needs of alcohol and drug-involved youth; and psychosocial needs of foster care youth. These reviews identified a significant overlap of the needs for youth in general and foster care youth. These included: 1) the need for non-substance use-related ways to manage stress; 2) the importance of engaging in pro-social activities; 3) developing a positive sense of self. Additionally, while it is well known that social support in general is positive for all youth, positive connections (e.g., healthy relationships) and social support for foster youth have been found to result in better adult outcomes. Given the importance of peers during this developmental period, the pervasive lack of age-appropriate sponsors within traditional 12-Step communities, and the growing recovery support movement, the addition of peer recovery specialists for young people was clearly indicated.

Key Informant Interviews with Stakeholders Associated with Intervention Development (and Implementation): We also completed interviews with key stakeholders to solicit feedback on initial draft outlines of our intervention sessions and to identify additional factors or content areas that may be particularly relevant to foster care youth. Specifically, we met with 16 key informants: 3 young people in recovery, 8 drug treatment providers (i.e., 5 program directors and 3 counselors; 5 foster care providers (i.e., 2 program directors and 3 caseworkers).

Recommendations from key informants confirmed content areas identified in literature reviews. Perhaps more importantly, they also shed valuable insight into how to deliver the intervention. Specifically, they recommended that youth be empowered to be active participants in the intervention. Suggestions included: provide youth with choices within and between sessions, empower youth to “own” the sessions (e.g., determine order of content, choose session activities from a menu of multiple activities), utilize interactive activities to maintain interest in the session; weave substance abuse into the sessions rather than focus exclusively on substance use as this latter approach may work against engagement; and contact youth using various modes of communication including text messaging which is a preferred mode of communication for this population. These recommendations were used to develop the session content for this study (described below in the *Intervention Session Descriptions* section).

Identification of Intervention Content Areas: The work above (i.e., literature review and key informant interviews) resulted in an intervention based upon a wellness theme that encompassed three content areas: Connecting with Your Community, Building Healthy Relationships, and Taking Charge of Stress. The majority of the content and activities for each session was associated with or inspired by existing evidence-based treatments (i.e., Teen Intervene, Cannabis Youth Treatment, STARRS II, Better Decision-Making by Teenagers), therapeutic recreational activities (i.e., Leisure Education II: More Activities and Resources, Therapeutic Recreation for Chemically Dependent Adolescents and Adults), and stress reduction techniques (e.g., Mindfulness for Teens, The Stress Reduction Workbook for Teens: Skills to Help You Deal with Stress). In this way, the intervention was based upon concepts, activities, and techniques that have been shown to be effective in other adolescent populations enhancing the likelihood of positive impact (Baer, Garrett, Beadnell, Wells, & Peterson, 2007; Baer, 2004; Biegel, 2009; Biegel, 2010; Godley, Meyers, Smith, Karvinen,

Titus, Godley, Dent, Passetti, & Kelberg, 2001; Winters, Fahnhorst, Botzet, Lee, & Lalone, 2012; Winters, & Leitten, 2007; Rainwater, 1992; Stumbo, 2002).

Aim 1.2 - pair youth with Certified Peer Recovery Counselors (CPRCs) to provide overall social support, support for abstinence, and linkages with pro-social activities - was achieved.

Literature Reviews Associated with Mentoring of Foster Care Youth: Our literature reviews indicated that personal and community connections are non-existent for the vast majority of youth in foster care, which further isolates them from seeking assistance for their substance use problems. Adding an extra layer of support (e.g., a peer mentor) may help aging out adolescents engage in a targeted intervention, thus improving outcomes. In fact, providing foster care youth with a mentor as they transition has been shown to increase positive outcomes (e.g., independent living skills, emotional stability) and decrease negative outcomes (e.g., fewer sexually transmitted infections, fewer arrests; Ahrens, DuBois, Richardson, Fan, & Lozano, 2008; Munson & McMillen 2009; Osterling & Hines, 2006). Given the importance of peers during this developmental period, peer mentors had the potential to encourage youth to participate in pro-social, non-drug using activities that could result in the development of long-term social support and an improved sense of self-esteem.

Guided by the results of our literature review, the CPRS* component of the intervention was designed: 1) to educate the adolescent about the benefits associated with participating in community-based volunteer activities and to assist in identifying an opportunity of interest; 2) to use the results of the Leisure Interest Measure to help the adolescent to select and get involved in non-drug using activities that fit with their individual interests; 3) to use volunteer activities as an opportunity to improve their interpersonal skills, and (4) to encourage post-study participation in these activities with the hope that on-going involvement would serve as a longer-term support system that would also indirectly support non-drug use and healthy behaviors.

* NOTE: The term “Peer Mentor/PM” will be used from here forward in this document. The shift in terminology from CPRS to PM is explained in Aim 2. The term “counselor” will be used from here forward in this document. We initially intended to hire a social worker for this position and then later elected to hire a counseling psychologist. The rationale for this modification can be found above in *Impact on Research Capacity and Quality* and below in *Aim 2/Counselor Training*.

Specifically, the intervention was designed so that Peer Mentors (PMs) would be actively involved in facilitating two of the sessions (identified below) in addition to co-identifying and partnering with an adolescent participant during community-based volunteer activities. An overview of the intervention sessions is provided below. The session content along with select handouts and worksheets can be found in Appendices A through E.

Descriptions of Intervention Sessions

- Session 1: *Getting to Know Each Other:* This session was co-conducted by the counselor** and the PM assigned to the adolescent (i.e., youth) participant. Session

learning objectives included (1) increasing the youth's comfort level with the counselor and PM, (2) facilitating insight into youth's drug use patterns and long-/short-term consequences of that use, and (3) providing the youth with opportunities to improve and use communication skills with the counselor and the PM by providing real-time verbal feedback on the session.

** NOTE: The term "counselor" will be used from here forward in this document. We initially intended to hire a social worker for this position and then later elected to hire a counseling psychologist. The rationale for this modification can be found above in *Impact on Research Capacity and Quality* and below in *Aim 2/Counselor Training*.

Session content included (1) introductions; (2) explaining study expectations, limits to confidentiality, the general format for each session, and the focus of the session; (3) engaging in an icebreaker activity (selected by the youth from a menu of options); (4) completing a functional analysis of the youth's drug use behavior; (5) discussing the youth's preference for sequencing the session content (i.e., *Building Healthy Relationships* or *Taking Charge of Stress*); (6) assigning homework (e.g., journaling about reactions to Session #1, meeting with PM); and (7) disseminating materials that would be used by the youth throughout the study (e.g., Lookbooks, art supplies, cameras).

- *Session 2: Leisure Interests & Connecting with Your Community*: This session was conducted by the PM. Session learning objectives included (1) identifying possible community-based volunteer activities, (2) identifying positives and negatives associated with community engagement activities and re-conceptualizing negative volunteer experiences in a positive, constructive framework that can be generalized to various challenging life circumstances, (3) identifying both personal and community-oriented reasons for participating in community activities, (4) identifying the skill set(s) that may be utilized by the participant in community activities and learning about various impression management strategies, (5) discussing how benefits associated with non-drug using activities outweighs those associated with drug using activities, and (6) providing the youth with opportunities to improve and use communication skills with the PM.

Session content included (1) reviewing homework, (2) discussing the youth's responses to the *Leisure Interest Measure*, (3) discussing pros and cons associated with volunteering in the community, (4) preparing for and learning from volunteer experiences; (5) discussing how to get the most out of volunteer experiences (including impression management), (6) identifying potential volunteer activities, and (7) assigning homework (e.g., participating in an initial "get-to-know-you activity" with the PM, identifying a volunteer activity to complete).

- *Session 3a: Building Healthy Relationships – Day 1*: This session was conducted by the counselor. Session learning objectives included (1) identifying qualities associated with healthy and unhealthy relationships, in general, and in specific to the youth's personal relationships, (2) identifying supportive and non-supportive people in the youth's immediate social circle, (3) identifying ways to engage more with supportive people and

engage less with unsupportive people in an effort to attain a personal goal, (4) recognizing situations in which alcohol and drug use detracts from healthy relationships, (5) identifying ways in which the youth can modify their social support network to help them to attain a personal goal, and (6) providing the youth with opportunities to improve and use communication skills with the Counselor.

Session content included (1) reviewing homework, (2) identifying perceived positive and negative qualities associated with celebrity relationships (e.g., Jay-Z & Beyonce; Kanye West & Kim Kardashian), (3) identifying characteristics of healthy and unhealthy relationships, (4) developing a schematic of the youth's present and ideal future personal nexuses of healthy and unhealthy relationships (including drug using family members and peers), and (5) assigning homework (e.g., revising/completing the youth's future personal nexus).

- *Session 3b: Building Healthy Relationships – Day 2:* This session was conducted by the counselor. Session learning objectives included (1) identifying and differentiating among four common communication styles, (2) identifying the youth's typical communication style, (3) recognizing the benefits associated with an assertive communication style, (4) improving the youth's ability to use an assertive communication style, and (5) providing the youth with opportunities to improve and use communication skills with the Counselor.

Session content included (1) reviewing homework, (2) discussing challenging interpersonal situations and peer pressure, (3) reviewing common communication styles (i.e., passive, aggressive, passive-aggressive, assertive), (4) labeling and shaping the youth's communication style including their non-verbal behavior, (5) role playing using assertive communication with corrective feedback (to help the youth to engage in healthy interpersonal interactions, including declining offers to use drugs), and (6) assigning homework (e.g., practicing assertive communication skills, if possible, in a drug use situation).

- *Session 4a: Taking Charge of Stress – Day 1:* This session was conducted by the counselor. Session learning objectives included (1) identifying positive and negative types of stress; (2) identifying emotional, physical, and cognitive ways that stress is experienced, (3) identifying unhealthy (e.g., drug use) and healthy ways of coping with stress, (4) identifying ways in which drug use can impede educational, work, and career goals, (5) identifying stressful life events and healthy (i.e., non-drug using) ways to address them, (6), describing biofeedback and learning how it can be used as a stress management technique, and (7) providing the youth with opportunities to improve and use communication skills with the Counselor.

Session content included (1) reviewing homework, (2) discussing two types of stress, (3) reviewing how stress is experienced (physical, emotional, cognitive aspects), (4) identifying healthy and unhealthy coping (e.g., drug use) strategies with implications for obtaining educational and career goals, (5) defining and discussing the benefits of using

biofeedback via a biodot device to recognize and manage stress, and (6) assigning homework (e.g., monitoring stress levels using biodots).

- Session 4b: *Taking Charge of Stress – Day 2*: This session was conducted by the counselor. Session learning objectives included (1) identifying healthy and unhealthy coping strategies used to address recent general life stressors and drug-related situations, (2) identifying healthy coping strategies to be implemented when encountering general life stress or drug use situations in the future, and (3) providing the youth with opportunities to improve and use communication skills with the Counselor.

Session content included (1) reviewing homework, (2) discussing and practicing concrete healthy coping strategies (selected by the youth), (3) discussing barriers to implementing healthy coping strategies, (4) completing an in-session journaling and/or progressive relaxation/meditation exercise (selected by the youth), and (5) assigning homework (i.e., practicing two coping strategies - such as completing the daily stress levels worksheet when using healthy coping strategies, journaling, meditating - if possible, during a drug use situation).

In addition to the six proposed sessions described above, each youth was allowed to request up to two additional sessions. The purpose of the additional sessions was to address any unexpected need expressed by the youth during the intervention.

Database Development of Pro-social Activities and Volunteer Opportunities: Because a core component of the intervention was connecting youth to their community, an intern systematically identified available pro-social activities and volunteer opportunities that included contact information, location(s), transportation options (e.g., subway, bus), hours, eligibility, and cost (if any). PMs had access to this comprehensive resource database containing over 450 organizational contacts. The database was divided into six categories: adolescent resources (e.g., arts, sports, and academic support activities), athletic leagues, recreation centers, youth development programs, libraries, and volunteer opportunities (e.g., with churches, the Philadelphia Zoo, the SPCA, local food banks) to facilitate participant-interest matching in areas accessible to the youth.

Supplemental Materials Utilized Throughout the Study: Given the focus on non-intervention time “homework”, practice, and journaling, participants selected a colorful notebook (i.e., Lookbook) and materials that they could use to personalize it (e.g., markers, pencils, stickers). They were able to use the Lookbook in any way they preferred but were encouraged to write about their reactions to participating in the study, attending activities with their PM, completing study-related homework assignments, documenting personal achievements, and using it as a personal journal. Participants were asked to bring the Lookbook to each session where they would be encouraged (but not required) to discuss their weekly entries.

In addition to the Lookbook, participants were given a disposable camera so that they could document their outings with the PM, document events of importance to them, etc. The photos were intended to reinforce involvement in community-based activities and enjoyable

non-drug using activities with the PM, peers, and/or family members and the possibility of developing leisure time interests.

Participants were also provided with snacks/light fare of their choice during each session. This was particularly important given that the sessions were often held immediately after school and before they had eaten their evening meal. These items were important in that they appeared to improve the participant's attention and concentration, as well as serving as an incentive to attend the session.

Aim 2. Develop a detailed implementation protocol with implementation fidelity measures in order for Aim 3/Phase 3 to be carried out. This will include intervention and manual development and associated staff training.

Aim 2 was partially achieved. The implementation protocol was developed; the fidelity measures were not developed nor implemented.

Protocol Development: Each module was designed so that a layperson can implement it with minimal preparation and relative ease. Each module was formatted to contain: 1) a list of materials needed for the session; 2) session learning objectives; and 3) session content. Importantly, much of the content is scripted so that the person delivering the intervention will not only have a solid grasp of the content, but also a clear understanding of how to administer the session materials (e.g., how to complete a functional analysis of the youth's drug use behavior or how to create a personal nexus) using an interpersonal demeanor that will not elicit defensiveness on the part of the youth. Since a discussion of the youth's drug use is infused into each session, avoiding defensiveness is essential.

As stated earlier, each youth was allowed to request up to two additional sessions in addition to the six proposed sessions. The purpose of the additional sessions was to address any unexpected need expressed by the youth during the intervention (e.g., a request for additional time on an existing module – in general or as it might related to an up-coming life event or substance use situation; a request for a session content that was not a part of the existing intervention).

Implementation Fidelity: We initially proposed that all sessions would be audiotaped and that fidelity checklists would then be completed on 25% of the sessions and PM activity logs to ensure that the session content and community-based volunteer activities were being implemented with intervention fidelity with the youth. There were two reasons why the proposed fidelity procedures were not implemented. At a most basic level, it was apparent early on that it was highly unlikely that we would gain the necessary system and/or IRB approvals for session audiotaping. During discussions with the Department of Human Services, the Philadelphia County IRB, and the staff at the recruitment site, it was apparent that audiotaping this vulnerable population was seen as intrusive. It was highly unlikely that we would receive the necessary official approvals for this aspect of the protocol and most importantly we did not want to do anything to make the participant uncomfortable. Second, since our goal was to pilot this intervention, we wanted the counselor to be able to modify aspects of it that were problematic. In this way, we would be able to trouble shoot and

resolve (in real time) content and process problems. Fidelity would be – by design – low as there would be deviation from the manual but an improved intervention could result. For these two reasons, the fidelity forms were not developed and a fidelity verification process was not implemented. We did however de-brief during the implementation phase of the project and made manual and protocol revisions as appropriate.

Counselor Training: We initially proposed that a social worker would be hired and trained by the principal investigator and co-investigator via didactic and experiential activities to implement the intervention with fidelity. In addition, this individual would have experience with motivational interviewing techniques and would receive weekly supervision. However, given the extreme delay encountered in securing necessary system approvals and subsequent Philadelphia IRB approval, a new hire was not time-efficient. Since Dr. Benishek co-developed the intervention and had clinical experience in manualized therapies (e.g., motivational interviewing) and with diverse participant populations including those with substance abuse, she was the logical choice for protocol implementation. Additionally, she would best understand what was and was not working in this new intervention. In fact, Dr. Benishek, a licensed counseling psychologist, possessed the curriculum development and teaching expertise, as well as the clinical background needed for this position. As such, there was no need to complete the proposed intensive training aspect of this study given her existing skill set. Face-to-face supervision with the co-investigator occurred on a weekly basis during the intervention phase of the study.

PM Recruitment: Several recruitment venues were utilized to identify and hire PMs who might be interested in partnering with and participating in community volunteer activities with foster care youth: 1) PRO-ACT (mentioned above); 2) *Young People in Recovery*; 3) the Philadelphia Office of Addiction Advisory Board; 4) local substance abuse treatment programs; and 5) local counseling-related master's degree programs. These efforts resulted in the identification of six PMs.

PM Training: Prior to their active involvement in the study, PMs completed an 8-hour training that was conducted by Dr. Benishek. The training consisted of: 1) a study overview; 2) review of human subjects protections and related issues (e.g., reporting adverse events; addressing potential reports of harm to self and others made by the youth); 3) content review for Sessions 1 and 2; and 4) review of logistical and liability issues related to the study procedures and outings with the youth. Dr. Benishek completed weekly individual phone meetings with the PMs to monitor their activities with the youth and to discuss anticipated barriers associated with identifying volunteer activities and completing the scheduled activities with the youth.

Dr. Benishek also met individually with each PM to prepare her to deliver the content associated with Session 1 - *Getting to Know Each Other* session (co-facilitated with Dr. Benishek) and the Session 2 - *Leisure Interests & Connecting with Your Community* (facilitated independently by the PM). These meetings consisted of reviewing session content, role-playing specific aspects of the session, and troubleshooting about potential barriers associated with working with each youth participant (e.g., how to engage a youth with poor verbal skills and flat affect).

Finally, Dr. Benishek provided PMs with training and access to a comprehensive pro-social activity and volunteer opportunity resource database that we developed for this study. The database contained over 450 organizational contacts that included adolescent-specific resources (e.g., arts, sports, and academic support activities), organized athletic leagues, recreation centers, youth development programs, libraries, and volunteer opportunities. It also included contact information, location(s), hours, eligibility, and cost (if any).

PM Study Involvement: Three of the six PMs were paired with a foster care participant. As mentioned above, the PMs co-facilitated the initial *Getting to Know Each Other* session with the counselor and then met individually with the youth to select and participate in community and volunteer activities that were of interest to the youth (i.e., *Leisure Interests & Connecting with Your Community*). The PM and foster youth were allowed to take part in an initial “get-to-know you” activity (e.g., water aerobics) prior to engaging in the initial volunteer experience. The purpose of the “get-to-know-you” activity was to improve the youth’s comfort level with the PM, foster a working alliance, and increase the likelihood that the youth would participate in and stay engaged in the study.

Aim 3. Pilot the intervention according to the implementation protocol, assess the degree to which it is implemented with fidelity, examine its feasibility with the staff and participant population, and collect preliminary efficacy data on substance use, social support, self-efficacy, and overall well-being outcomes.

Aim 3 was partially achieved. We were able to pilot the intervention, assess acceptability and feasibility with staff and participants, and collect preliminary data but not with the projected number of participants. We also did not collect feasibility data as discussed above. Further, it was within Aim 3 where we made project revisions to the original protocol.

Project Revisions 1 and 2: There were three revisions to the originally approved protocol. The first had to do with the fidelity measures which have previously been explained. The second had to do with database design for research measures. Although we initially proposed that the University of Pennsylvania Data Management Unit would develop a web-based data entry program for this study, we decided to forgo this program and use those funds to support Dr. Benishek to assist with the development and piloting of the intervention. We believed that the money initially allocated to develop the data entry program could be better spent on staffing given that our procedures had significantly changed and that our initial target number of participants was relatively small ($n=20$), negating the need for an elaborate database.

Project Revision 3 and Protocol Delays: The third – and perhaps most substantive – had to do with recruitment strategies. Upon notice of the grant award, we immediately requested county-specific policies and procedures for conducting research with foster care youth. Unfortunately no such document existed resulting in conflicting information, uncertainty over which approvals by which agency were needed, approval delays, and substantive protocol revisions. For example, after engaging in repeated contradictory discussions with the Philadelphia Department of Human Services (DHS) and the Philadelphia Department of Public Health IRB (City IRB) over a nine-month period, we were finally informed that our

TRI IRB-approved consent process (i.e., obtaining assent/consent from the adolescent and consent from their assigned caseworker) was inadequate for DHS and, hence, the City IRB. Instead, DHS' approval was contingent on obtaining consent for study invitations and enrollment from at least one biological parent whose rights had not been terminated regardless of their involvement (or lack thereof) with their child. (They would accept caseworker consent for youth whose biological parents' rights had been terminated.) While we acknowledged the need for human subjects protection and provided our long history on conducting research with other vulnerable adolescent populations (e.g., those in the juvenile justice system), we also expressed our concern that this would further delay participant enrollment and provided regulatory language and clinical rationale for proposing a different procedure. Since our response and the proposed protocol was still not supported by DHS, we revised our protocol, developed release of information forms to be used by site staff who agreed to attempt biological parent contact, developed parental informed consent forms, and revised adolescent assent forms. Once these materials were reviewed and approved by DHS (an additional two-to-three month process), we submitted these revisions to the TRI IRB (approved on 2/4/14) and upon TRI IRB approval, they were then sent to the City IRB (approved on 3/12/14).

The length of time needed to gain clarity and procedural requirements for participant recruitment and participation and to revise our protocol and consent forms coupled with the time it took to obtain final official signatures and City IRB review significantly impacted our ability to implement the protocol with 20 young people in foster care. Nine-months of discussion followed by an additional three months of obtaining approvals resulted in 12 weeks for recruitment and implementation. The extremely shortened timeline coupled with labor-intensive consent procedures significantly impacted our N as well as our proposed assessment timeframes. Although we proposed two post-intervention follow-ups, we were only able to complete the assessment battery at the completion of the intervention.

Given the unexpectedly lengthy DHS and subsequent City IRB approval process, it was necessary for us to significantly modify the duration of the study so that it could be completed by the end of the funding period (June 30, 2014). Although we maintained the integrity of the 6-session intervention, we were not able (1) to complete proposed number of PM support sessions (i.e., weekly sessions during the 6-week intervention and bi-weekly for two months post-intervention for a total of 10 sessions) and (2) to complete post-intervention follow-up assessments. Furthermore, we chose to complete an abbreviated end-of-intervention assessment given that change on some measures was predicated on the PM component and required some amount of time for change to occur.

Participant Recruitment: Although we had met with the Site director and staff during intervention and protocol development, the procedural recruitment and implementation planning meeting took place on March 26, 2014. The purpose of the meeting was (1) to obtain relevant census information about the youth residing at the Site and (2) to identify the procedures for implementing the recruitment, screening, assenting/consenting, and assessment processes. A total of 15 girls were residing at the Site at the time of this meeting. Three of these youth were deemed ineligible to participate in the study because they did not fall within our targeted range of 15-18 years of age. Two additional youth were scheduled to

leave the program during the week that the study would commence. Thus, 10 youth were potential study participants. Adhering to the City IRB-approved recruitment procedures, the Site case manager attempted to contact the biological parents/guardians of the identified eligible adolescents ($n=6$) and the DHS caseworkers of youth who did not have accessible biological parents/guardians ($n=4$). The purpose of this contact was to complete a *Release of Contact Information Form* that would allow our research staff to contact the parent/caseworker to obtain their approval to approach their child in order to invite them to participate in the study. By the end of our designated screening and recruitment period (May 9, 2014 to allow for completion of 6 intervention sessions before the project end date), the Site case manager was able to make contact with four of the six identified biological parents/guardians and one of the four DHS caseworkers. Importantly, none of the four the parent/guardians expressed reservations about their youth’s participation in the study and one of them was extremely enthusiastic that her sister would be presented with this opportunity. The one caseworker refused to accept our child abuse and criminal history clearances which we routinely obtain and instead asked that we complete them again. Given existing time constraints and our up-to-date clearances, we believed that this request was an additional barrier and decided to forgo attempting consent/assent from the designated youth.

Consequently, only four youth could be invited to be screened to determine their interest in and eligibility to participate in the study. One of the four youth was deemed ineligible during the screening process because she did not meet the drug use inclusion criteria (i.e., any use within the past year). The remaining three youth met the inclusion conditions and completed the assent process, the baseline assessment, and at least two intervention sessions. Importantly, system-imposed eligibility criteria were too restrictive (i.e., need for biological parent consent for children removed from the home for abuse or neglect) which impacted recruitment activities. The small N was not a result of the study not appealing to subjects. The following table illustrates participant demographics.

Participant Demographics	
Age Range	15 – 17 years
% White	33%
% Latina	33%
% Female	100%
Substances Used	Tobacco, Alcohol, Cannabis

Pilot STAAT Implementation and Acceptability and Feasibility Evaluation

Despite the small N, we did in fact pilot both intervention components and obtain preliminary indicators of appropriateness, acceptability and feasibility. The three participants were quite different from each other in terms of personal background, present life situation, mental health, cognitive abilities, and substance use allowing us to gain some insight into its

utility with a diverse population. Participants had varying degrees of engagement which appeared to result from extent of drug use and cognitive abilities. One participant reported daily substance use and exhibited concomitant disruptive behavioral symptomology. She refused our treatment referral but initially participated in the intervention during times of the day that would compete with drug use. Her discharge from congregate care back to a biological parent who allowed use appeared to be the precipitant to study termination. Despite our willingness to meet with her close to her home, she terminated study participation after three sessions. A different participant exhibited cognitive impairment necessitating continual non-traditional modifications in the implementation of the intervention content so that she could better understand and apply it to her personal situation. She did however complete five of the six counselor sessions and met with her PM. A third participant completed the intervention in its entirety and requested and received an additional session. She was highly engaged throughout and appeared to gain the most from participation.

Importantly, we found that even with only three participants, intervention modifications were needed within activities, teaching modalities, and session content. We were able to modify each of these with ease which *attests to the versatility of the intervention* in addressing both general and youth-specific needs. As described below, we:

- *Modified the session activities* so that they would address the immediate needs of the participant:
 - *Example:* Practicing assertiveness skills that could be implemented during an upcoming foster care status hearing
 - *Example:* Purchasing a food log book and utilizing it in a way that was intended to increase the participant's awareness of the link between her eating behaviors, drug use, and life stress and addressing ways in which to modify her behavior using content from the stress management sessions.
- *Modified teaching modality* to be more amenable to participant cognitive deficits
 - *Example:* Using tactile activities to teach concepts that were contained on handouts and worksheets
- *Modified and enhanced session content* to address identified participant life skills deficits that were not a part of the standard STAAT intervention
 - *Example:* Conducting a session on time management, per the participant's request

It is not surprising that the significantly abbreviated time window coupled with the fact that only three participants were enrolled in the study negated our ability to: 1) collect follow-up data at the proposed one- and three-month post-intervention time points; and 2) quantitatively analyze end of intervention data. Nonetheless, there were indications of intervention acceptability and feasibility among youth and sites that serve them. Unfortunately, however, feasibility was significantly compromised in four ways: 1) conflicting information on procedural requirements for working with this population of youth; 2) substantial and burdensome start-up time needed for system and regulatory approvals; 3) need for biological

parental consent even for youth whose biological parent(s) were not involved but whose parental rights have not been terminated; 4) unwillingness of caseworkers to accept valid child abuse and criminal history clearances. If the intervention were to be tested on a larger scale, shown to be effective, and become part of standard practice, procedural issues would be known and start-up time would be decreased thereby improving feasibility. However, the issue of biological parental consent and caseworker acceptability would still need to be resolved.

As mentioned earlier, two of the three participants completed the intervention and were willing to provide information about their perceptions of the overall STAAT program as well as individual sessions. The third participant, P01, self-terminated from the intervention so there is limited data from this participant.

As illustrated in the following table, the individual and group mean values indicate that the intervention was acceptable to youth. That is, participants had favorable reactions (very or extremely) to each of the sessions.

Intervention Session Feedback									
Participant	Feedback Item	Introduction	Connecting with Community	Taking Charge of Stress - Day 1	Taking Charge of Stress - Day 2	Healthy Relationships - Day 1	Healthy Relationships - Day 2	Time Management	Session Average by Participant
X	Would Attend if Knew Topic in Advance	1*	1*	1*	n/a	n/a	n/a	n/a	
	Worth My Time	5	4	4	n/a	n/a	n/a	n/a	
	Held My Interest	5	4	4	n/a	n/a	n/a	n/a	
	Useful	5	4	5	n/a	n/a	n/a	n/a	
	Would Encourage Friend to Attend Session	5	4	5	n/a	n/a	n/a	n/a	
	Mean scores for P01 excluding outlier	5	4	4.5					4.5
X	Would Attend if Knew Topic in Advance	4	5	5	4	5	5	5	
	Worth My Time	4	5	5	4	5	5	4	
	Held My Interest	5	5	5	4	5	5	4	
	Useful	4	5	5	5	4	5	5	
	Would Encourage Friend to Attend Session	4	5	5	5	5	5	5	
	Mean scores for P02	4.2	5	5	4.4	4.8	5	4.6	4.7

X	Would Attend if Knew Topic in Advance	3	5	4	n/a	4	n/a	n/a	
	Worth My Time	3	5	4	n/a	4	n/a	n/a	
	Held My Interest	3	5	4	n/a	4	n/a	n/a	
	Useful	3	5	4	n/a	3	n/a	n/a	
	Would Encourage Friend to Attend Session	4	5	4	n/a	4	n/a	n/a	
	Mean scores for P03	3.2	5	4		3.8			4
	OVERALL MEAN SCORES	4.1	4.67	4.5	4.4	4.3	5	4.5	4.4

Note. The session coded in grey was facilitated independently by Peer Mentor. 1=Not at all true; 2=A little true; 3=Somewhat true; 4=Very true; 5=Extremely true. n/a indicates that the participant did not complete this session. The "1*" value indicates that P01 liked the topic but knowing the topic in advance would not have increased her interest in attending that session.

Similarly, results from the overall program evaluation also illustrate acceptability despite variability in the content areas that participants deemed to be most useful. For example, one participant indicated that the *Healthy Relationships* component was the most useful to her, where another indicated that this component was the least useful. Both participants indicated that the STAAT was very/extremely useful to them at this point in their lives, and they anticipated that it would be useful to them in the future. One participant's responses were also more favorable than other participants' responses with regard to changes in *knowledge* about skills that were addressed during the intervention, reporting more knowledge about what healthy relationships consisted of, how to be assertive, how to cope with difficult situations, and how to choose and get involved in volunteer activities. With the exception of one survey item ("How likely are you to end relationships that are unhealthy?"), one participant reported a greater *perceived ability to implement these skills* after being exposed to the STAAT intervention than did others.

Overall STAAT Program Feedback			
Feedback Item	X*	X	X
Rank: 1= Most useful content; 4=Least useful content			
Introduction		2	2
Connecting with Community		3	1
Taking Charge of Stress		4	3
Healthy Relationships		1	4
1=Not at all true; 3=Somewhat true; 5=Extremely true			
Would Attend if Knew Topic in Advance		5	3
Worth My Time		5	3
Held My Interest		4	3
Useful		5	3
Would Encourage Friend to Attend Session		5	3
Useful to Me Right Now		5	4
Useful to Me in Future		5	4

<i>In Comparison to Before You Took Part in the Program, you now know...</i> 1=Not at all true; 3=Somewhat true; 5=Extremely true			
What a healthy relationship looks like		5	3
How to be assertive		5	3
How to cope with difficult situations		5	4
How to choose/get involved in volunteer experience		4	3
<i>In Comparison to Before You Took Part in the Program, how likely are you to...</i> 1=Not at all true; 3=Somewhat true; 5=Extremely true			
Develop relationships that are healthy?		4	3
End relationships that are unhealthy?		4	4
Be assertive and let others know how you feel?		5	3
Use healthy coping techniques to deal with difficult life situations?		4	3
Get involved in a volunteer experience?		4	3
<i>In Comparison to Before You Took Part in the Program, how likely are you to use alcohol or other drugs when you're...</i> 1=A lot more likely; 3=No difference; same as before; 5=A lot less likely			
Stressed?		3	2
Depressed?		3	2
Bored?		5	4
Angry?		3	4
With friends, including boyfriend or girlfriend?		4	3
In any situation, when given an opportunity to use?		4	5

Note. *= Data not collected from this participant.

Participants identified three primary intervention strengths (i.e., opportunities to focus on content that was important to the youth, the ease at which the youth could relate to the counselor and PM, the use of materials that were likely to help the youth stay focused on her personal goals and intervention assignments, personalization of the material so that it better met the youth's self-perceived needs) as well as three areas for improvement (i.e., increased opportunities to discuss immediate issues that were distressing the youth, request for greater depth of information/more time spent on content, more time playing games as a teaching strategy). Statements regarding satisfaction with the program included: I had a lot of fun, I learned a lot and gained some helpful and healthy skills, regarding relevant activities - time management – an important skill for me to learn; was really bad at it and have improved, regarding favorite part of the intervention - doing things I wouldn't normally do; wouldn't have gone to water aerobics or volunteered; she got me going on things I would put off. The sole suggestion for program improvement was to provide transportation via car to make it easier to get community activities (public transportation was exclusively used because we wanted them to be able to navigate this once the intervention was over).

To summarize, there is some indication that the STAAT intervention is acceptable to both foster care programs and the youth they serve. Despite barriers and the limited number of youth enrolled in the study, Site staff appeared to be quite interested in implementing STAAT with their residents. This was evident in a number of ways: (1) The director was willing to allow the program's case worker to use her employment hours to assist with our recruitment process by contacting parents, guardians, and case workers associated with potentially study eligible participants. (2) The Site case worker was willing to add this recruitment activity to her already full workload without receiving financial compensation from us or from the Site. (3) The Site staff expressed disappointment when a resident was deemed not eligible to participate in the study. Their preference was to have the STAAT intervention offered to all their residents, not just the ones who reported substance use in the past year. (4) Out of respect for research staff time, the Site staff spontaneously contacted the counselor, PM, and research assistant when they had reason to believe that a participant would need to reschedule or be late to a session. (5) The Site staff spontaneously disclosed information to the counselor pertaining to potentially relevant participant issues that could be integrated in the STAAT session (e.g., up-coming court hearings; information about drug use that they, as a program, had just become aware of; psychological and family issues that were impeding the resident's academic performance and could potentially trigger increased drug use).

Two of the three participants exhibited good to excellent interest in the STAAT intervention. This was evident in several ways: (1) They attended all or most of the module sessions. (2) They were willing to schedule community-based activities and continued to re-schedule when necessary. (3) One participant requested an additional session so that she could work on a self-identified life skill deficit. (4) All participants were willing to discuss their past and present drug use and did not express concern that these disclosures would impact their privileges at the Site or future court-related decisions related to their foster care placement. (5) the Site staff informed us that the participants spontaneously told them that they "missed (our) meetings" once the study was no longer active.

There is also some indication that the STAAT intervention is feasible to both foster care programs and the youth they serve but less so among the larger system of care. As mentioned above, we found we were able to modify activities, modalities and content with ease which attests to the feasibility and versatility of the intervention in addressing both general and youth-specific needs. We were also able to implement sessions without disruption to program operations or school schedules and to find community activities that were free of charge and that youth could access through public transportation. Unfortunately, however, feasibility was significantly compromised in four ways: 1) conflicting information on procedural requirements for working with this population of youth; 2) substantial and burdensome start-up time needed for system and regulatory approvals; 3) need for biological parental consent even for youth whose biological parent(s) were not involved but whose parental rights have not been terminated; and 4) unwillingness of caseworkers to accept valid child abuse and criminal history clearances. If we cannot adequately solve each of these four system-related issues, such an intervention will fail no matter how important, acceptable, or feasible it is among youth and their service providers. We plan to obtain other funding to determine whether these issues are county-specific. If they are not and we either have less

barriers or our solutions are acceptable to parties involved, system-specific feasibility could be achieved.

In summary, despite the considerable challenges encountered when attempting to initiate and complete this study, a versatile, acceptable and somewhat feasible wellness-focused intervention with accompanying manual and worksheets that address substance use among teenagers in and transitioning out of foster care exists.

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18. Clinical Activities Initiated and Completed. Items 18(A) and 18(B) should be completed for all research projects. If the project was restricted to secondary analysis of clinical data or data analysis of clinical research, then responses to 18(A) and 18(B) should be “No.”

18(A) Did you initiate a study that involved the testing of treatment, prevention or diagnostic procedures on human subjects?

Yes
 No

18(B) Did you complete a study that involved the testing of treatment, prevention or diagnostic procedures on human subjects?

Yes
 No

If “Yes” to either 18(A) or 18(B), items 18(C) – (F) must also be completed. (Do NOT complete 18(C-F) if 18(A) and 18(B) are both “No.”)

18(C) How many hospital and health care professionals were involved in the research project?

 0 Number of hospital and health care professionals involved in the research project

18(D) How many subjects were included in the study compared to targeted goals?

 20 Number of subjects originally targeted to be included in the study
 3 Number of subjects enrolled in the study

Importantly, system-imposed eligibility criteria were too restrictive (i.e., need for biological parent consent for children removed from the home for abuse or neglect) impacted recruitment activities. The small N was not a result of the study not appealing to subjects.

Note: Studies that fall dramatically short on recruitment are encouraged to provide the details of their recruitment efforts in Item 17, Progress in Achieving Research Goals, Objectives and Aims. For example, the number of eligible subjects approached, the number that refused to participate and the reasons for refusal. Without this information it is difficult to discern whether eligibility criteria were too restrictive or the study simply did not appeal to subjects.

18(E) How many subjects were enrolled in the study by gender, ethnicity and race?

Gender:

 0 Males
 3 Females
 Unknown

Ethnicity:

 1 Latinos or Hispanics
 2 Not Latinos or Hispanics
 Unknown

Race:

 American Indian or Alaska Native
 Asian
 2 Blacks or African American
 Native Hawaiian or Other Pacific Islander
 1 White
 Other, specify: _____
 Unknown

18(F) Where was the research study conducted? (List the county where the research study was conducted. If the treatment, prevention and diagnostic tests were offered in more than one county, list all of the counties where the research study was conducted.)

Philadelphia

19. Human Embryonic Stem Cell Research. Item 19(A) should be completed for all research projects. If the research project involved human embryonic stem cells, items 19(B) and 19(C) must also be completed.

19(A) Did this project involve, in any capacity, human embryonic stem cells?

 Yes
 X No

19(B) Were these stem cell lines NIH-approved lines that were derived outside of Pennsylvania?

 Yes
 No

19(C) Please describe how this project involved human embryonic stem cells:

20. Articles Submitted to Peer-Reviewed Publications.

20(A) Identify all publications that resulted from the research performed during the funding period and that have been submitted to peer-reviewed publications. Do not list journal abstracts or presentations at professional meetings; abstract and meeting presentations should be listed at the end of item 17. **Include only those publications that acknowledge the Pennsylvania Department of Health as a funding source** (as required in the grant agreement). List the title of the journal article, the authors, the name of the peer-reviewed publication, the month and year when it was submitted, and the status of publication (submitted for publication, accepted for publication or published.). Submit an electronic copy of each publication or paper submitted for publication, listed in the table, in a PDF version 5.0.5 (or greater) format, 1,200 dpi. Filenames for each publication should include the number of the research project, the last name of the PI, and an abbreviated title of the publication. For example, if you submit two publications for Smith (PI for Project 01), one publication for Zhang (PI for Project 03), and one publication for Bates (PI for Project 04), the filenames would be:

- Project 01 – Smith – Three cases of isolated
- Project 01 – Smith – Investigation of NEB1 deletions
- Project 03 – Zhang – Molecular profiling of aromatase
- Project 04 – Bates – Neonatal intensive care

If the publication is not available electronically, provide 5 paper copies of the publication.

Note: The grant agreement requires that recipients acknowledge the Pennsylvania Department of Health funding in all publications. Please ensure that all publications listed acknowledge the Department of Health funding. If a publication does not acknowledge the funding from the Commonwealth, do not list the publication.

Title of Journal Article:	Authors:	Name of Peer-reviewed Publication:	Month and Year Submitted:	Publication Status (check appropriate box below):
1.None				<input type="checkbox"/> Submitted <input type="checkbox"/> Accepted <input type="checkbox"/> Published
2.				<input type="checkbox"/> Submitted <input type="checkbox"/> Accepted <input type="checkbox"/> Published
3.				<input type="checkbox"/> Submitted <input type="checkbox"/> Accepted <input type="checkbox"/> Published

20(B) Based on this project, are you planning to submit articles to peer-reviewed publications in the future?

Yes___ _____ No___X - Not at this time.

21. Changes in Outcome, Impact and Effectiveness Attributable to the Research Project.

Describe the outcome, impact, and effectiveness of the research project by summarizing its impact on the incidence of disease, death from disease, stage of disease at time of diagnosis, or other relevant measures of outcome, impact or effectiveness of the research project. If there were no changes, insert “None”; do not use “Not applicable.” Responses must be single-spaced below, and no smaller than 12-point type. DO NOT DELETE THESE INSTRUCTIONS. There is no limit to the length of your response.

As described throughout, it is too early to determine whether the intervention will reduce substance use and improve adult outcomes among foster care youth. Additional feasibility testing with an evaluation component followed by a comparative effectiveness trial is needed.

22. Major Discoveries, New Drugs, and New Approaches for Prevention Diagnosis and Treatment. Describe major discoveries, new drugs, and new approaches for prevention, diagnosis and treatment that are attributable to the completed research project. If there were no major discoveries, drugs or approaches, insert “None”; do not use “Not applicable.” Responses must be single-spaced below, and no smaller than 12-point type. DO NOT DELETE THESE INSTRUCTIONS. There is no limit to the length of your response.

None.

23. Inventions, Patents and Commercial Development Opportunities.

23(A) Were any inventions, which may be patentable or otherwise protectable under Title 35 of the United States Code, conceived or first actually reduced to practice in the performance of work under this health research grant? Yes _____ No X

If “Yes” to 23(A), complete items a – g below for each invention. (Do NOT complete items a - g if 23(A) is “No.”)

- a. Title of Invention:
- b. Name of Inventor(s):
- c. Technical Description of Invention (describe nature, purpose, operation and physical, chemical, biological or electrical characteristics of the invention):
- d. Was a patent filed for the invention conceived or first actually reduced to practice in the performance of work under this health research grant?
Yes _____ No _____

If yes, indicate date patent was filed:

- e. Was a patent issued for the invention conceived or first actually reduced to practice in the performance of work under this health research grant?

Yes _____ No _____

If yes, indicate number of patent, title and date issued:

Patent number:

Title of patent:

Date issued:

- f. Were any licenses granted for the patent obtained as a result of work performed under this health research grant? Yes _____ No _____

If yes, how many licenses were granted? _____

- g. Were any commercial development activities taken to develop the invention into a commercial product or service for manufacture or sale? Yes _____ No _____

If yes, describe the commercial development activities:

23(B) Based on the results of this project, are you planning to file for any licenses or patents, or undertake any commercial development opportunities in the future?

Yes _____ No _____

If yes, please describe your plans:

24. Key Investigator Qualifications. Briefly describe the education, research interests and experience and professional commitments of the Principal Investigator and all other key investigators. In place of narrative you may insert the NIH biosketch form here; however, please limit each biosketch to 1-2 pages. *For Nonformula grants only – include information for only those key investigators whose biosketches were not included in the original grant application.*

BIOGRAPHICAL SKETCH

NAME Övgü Kaynak, Ph.D.	POSITION TITLE Associate Research Scientist
eRA COMMONS USER NAME (credential, e.g., agency login) OKAYNAK	

EDUCATION/TRAINING

INSTITUTION AND LOCATION	DEGREE	MM/YY	FIELD OF STUDY
Pennsylvania State University, State College, PA	BA	05/01	Psychology
University of Pennsylvania, Philadelphia, PA	MSEd	05/05	Interdisciplinary Studies in Human Development
Temple University, Philadelphia, PA	PhD	08/10	Public Health

Positions and Honors

Positions and Employment

- 2000-2001 Research Assistant, Dept. of Psychology, Pennsylvania State University, University Park, PA
- 2002-2003 Research Assistant, School of Medicine, Addictions, University of Pennsylvania, Philadelphia, PA
- 2003-2005 Research Coordinator, School of Medicine, Addictions, University of Pennsylvania, Philadelphia, PA
- 2005-2007 Research Associate, Philadelphia Safe and Sound, Philadelphia, PA
- 2006 Instructor of record, School of Social Work, Temple University, Philadelphia, PA
- 2007-2008 Research Assistant, Temple University Partnership Program, Temple University, Philadelphia, PA
- 2007-2010 Student Editor, Quarterly newsletter, Department of Public Health, Temple University, Philadelphia, PA
- 2007-2010 Instructor of record, Department of Public Health Temple University, Philadelphia, PA
- 2008 Teaching Assistant, Department of Public Health, Temple University, Philadelphia, PA
- 2008-2010 Research Assistant, Social Behavioral Health Interventions Lab, Temple University, Philadelphia, PA
- 2010-2011 Research Associate/Post-doc, Social Behavioral Health Interventions Lab, Temple University, Philadelphia, PA
- 2011-present Adjunct Assistant Professor, Department of Public Health, Temple University, Philadelphia, PA
- 2011-present Associate Research Scientist, Treatment Research Institute, Philadelphia, PA

Other Experience and Professional Memberships

- 2004-present Trainer, Composite International Diagnostic Interview, School of Medicine, Addictions, University of Pennsylvania, Philadelphia, PA
- 2008 American Public Health Association
- 2009 Society of Behavioral Medicine

2010 Abstract reviewer, Society for Prevention Research Annual Meeting
 2010 Society for Prevention Research
 2011 Society for Research on Adolescence
 2012 Certificate Program in Virtual Teaching, Temple University, Distance Learning and Summer Programs
 2013 Ad hoc reviewer, Journal of Studies on Alcohol and Drugs

Certifications and Honors

2003 Addiction Severity Index Certified
 2003 Substance Dependence Severity Scale Certified
 2003 Risk Behavior Scale Trainer
 2004 Composite International Diagnostic Interview Trainer
 2007 CITI Human Subjects and HIPAA training
 2010 CITI Refresher Course
 2010 Sandy Schinfeld Memorial Award Recipient
 2010 Society for Prevention Research Travel Scholarship

Selected Peer-Reviewed Publications

1. Forman, R.F., Crits-Christoph, P., Kaynak, Ö., et al. (2007). A feasibility study of a web-based performance improvement system for substance abuse treatment providers. *Journal of Substance Abuse Treatment*, 33(2), 363-371. PMID: PMC2111171
2. Kaynak, Ö., Meyers, K., O'Brien, & Dowdy, S. (2008). Do youth in different youth-serving systems of the 'real-world' have access to integrated behavioral health treatments approaches when their symptom profiles are similar? An initial examination of youth in the juvenile justice and substance abuse treatment systems. *The American Journal of Integrated Mental Health Care*, 1(1), 2-21.
3. Kaynak, Ö., Lepore, S.J., & Kliewer, W. (2011) Social moderation of the relation between community violence exposure and depressive symptoms in an urban adolescent sample. *Journal of Social and Clinical Psychology*, 30(3), 250-269.
4. Kaynak, Ö., Meyers, K., Caldeira, K. M., Vincent, K. B., Winter, K. C., & Arria, A.M., (2012) Relationships among parental monitoring and sensation seeking on the development of substance use disorder among college students. *Addictive Behaviors*, 38(1), 1457-1463. PMID: PMC3493701
5. Meyers, K., Kaynak, Ö., Clements, I., White, T., & Bresani, E. (2013) Underserved parents underserved youth: Considering foster parent willingness to foster substance using adolescents. *Children and Youth Services Review*, 35, 1650-1655. doi: 10.1016/j.childyouth.2013.06.016. NIHMSID: NIHMS502199
6. Kaynak, Ö., Meyers, K., Calderia, K., Vincent, K. B., Winters, K. C., & Arria, A. (2013). Relationships among parental monitoring and sensation seeking on the development of substance abuse disorders among college students. *Addictive Behaviors*, 38(1), 1457-1463. PMID: PMC3493701
7. Kaynak, Ö., Winters, K.C., Cacciola, J., Kirby, K., & Arria, A.M. (2014) Providing alcohol for underage youth: What messages should we be providing parents? *Journal of Studies on Alcohol and Drugs*, 75(4), 590-605.
8. Curtis, B., Alanis-Hirsch, K., Kaynak, Ö., McLellan, A. T., Cacciola, J. & Meyers, K. (in press). Using web searches to track interest in synthetic marijuana (aka "herbal incense"). *Drug and Alcohol Review*.

BIOGRAPHICAL SKETCH

NAME Kathleen Meyers	POSITION TITLE Senior Research Scientist
eRA COMMONS USER NAME (credential, e.g., agency login) kameyers	

EDUCATION/TRAINING

INSTITUTION AND LOCATION	DEGREE	MM/YY	FIELD OF STUDY
Rutgers University, New Brunswick, NJ	B.A.	05/80	Psychology
Hahnemann University, Philadelphia, PA	M.S.	06/83	Evaluation and Applied Research
Temple University, Philadelphia, PA	Ph.D.	05/99	Educational Psychology

Positions and Honors

Primary Author of the Comprehensive Adolescent Severity Inventory (CASI)

Employment in Past 20 Years

1987-1992 Assistant Director of Research, Carrier Foundation, Belle Mead, NJ
 1995-1999 Senior Scientist, Treatment Research Institute, Philadelphia, PA
 1997-2006 Research Psychologist/Director of Clinical Assessment Services, Systems Measures, Inc., Schwenksville, PA
 1992-2005 Adjunct Assistant Professor of Psychology in Psychiatry, Center for Studies of Addiction, Dept. of Psychiatry, School of Medicine, University of Pennsylvania, Philadelphia, PA
 2002-2004 Associate Professor, Dept. of Psychiatry, UMDNJ, New Brunswick, NJ/Camden, NJ
 2004-2008 V.P. of Research, Philadelphia Safe and Sound, Philadelphia, PA
 2008-2010 Director, Research and Evaluation, Greater Philadelphia Urban Affairs Coalition, Philadelphia, PA
 2010-present Senior Research Scientist, Treatment Research Institute, Philadelphia, PA

Honors

2000 Invited Member, National Repository of Adolescent Experts, Office of Juvenile Justice and Delinquency Prevention
 2004 Research Award for Excellence, Caron Foundation, PA
 2011-present Co-Chair, Office of Addiction Services Advisory Board, Philadelphia, PA

Selected Peer-Reviewed Publications

1. Meyers, K., McLellan, A. T., Jaeger, J. L., & Pettinati, H. M. (1995). The development of the Comprehensive Addiction Severity Index for Adolescents (CASI-A): An interview for assessing the multiple problems of adolescents. *Journal of Substance Abuse Treatment*, 12(3), 181-193.
2. Meyers, K., Hagan, T.A., Zanis, D., Webb, A., Frantz, J., Rutherford, M., Ring-Kurtz, S., & McLellan, A. T. (1999). Critical issues in adolescent assessment: Assessing the treatment needs of adolescent substance abusers. *Drug and Alcohol Dependence*, 55, 235-246.

3. Meyers, K., Webb, A., Frantz, J. A., & Randall, M. (2003). What does it take to retain substance-abusing adolescents in research protocols? Delineation of effort required, strategies undertaken, and baseline and outcome differences by retention difficulty. *Drug and Alcohol Dependence*, 69(1), 73-85.
4. McLellan, A. T., & Meyers, K. (2004). Contemporary addiction treatment: A review of systems problems in the treatment of adolescents and adults with substance use disorders. *Biological Psychiatry*, 56(10), 764-770.
5. Dembo, R., Walters, W. & Meyers, K. (2005). A practice/research collaborative: An innovative approach to identifying and responding to psychosocial functioning problems and recidivism risk among juvenile arrestees. *Journal of Offender Rehabilitation*, 41(1), 39-66.
6. Meyers, K., Hagan T. A., McDermott, P., Webb, A., Randall, M., & Frantz, J. (2006). Factor structure of the Comprehensive Adolescent Severity Inventory (CASI). *American Journal of Drug and Alcohol Abuse*; 32(3), 287-310.
7. Meyers, K., McDermott, P., Webb, A. & Hagan, T. A. (2006). Mapping the clinical complexities of adolescents with substance use disorders: A typological study. *Journal of Child and Adolescent Substance Abuse*; 16(1), 5-24.
8. Dembo, R., Wareham, J., Poythress, N., Meyers, K., Cook, B., & Schmeidler, J. (2007). Continuities in problem behavior in high-risk youth. *Journal of Child and Adolescent Substance Abuse*, 16(4), 91-118.
9. Dembo, R., Wareham, J., Poythress, N., Meyers, K., Cook, B., & Schmeidler, J. (2008). Psychosocial functioning problems over time among high risk youth: A latent class transition analysis. *Crime and Delinquency*, 54(4), 664-670.
10. Kaynak, Ö., Meyers, K., & O'Brien Dowdy, S. (2008). Do youth in different youth-serving systems of the 'real-world' have access to integrated behavioral health treatments approaches when their symptom profiles are similar? An initial examination of youth in the juvenile justice and substance abuse treatment systems. *The American Journal of Integrated Mental Health Care*, 1, 2-21.
11. Kaynak, Ö., Meyers, K., Calderia, K., Vincent, K. B, Winters, K. C., & Arria, A. (2013) Relationships among parental monitoring and sensation seeking on the development of substance use disorder among college students. *Addictive Behaviors*. 38(1), 1457-1463. PMID: PMC3493701
12. Meyers, K., Kaynak, Ö., Clements, I., Bresani, E., & White, T. (2013). Underserved parents, underserved youth: Considering foster parent willingness to foster substance-using youth. *Children and Youth Services Review*. NIHMSID: NIHMS502199
13. Curtis, B., Alanis-Hirsch, K., Kaynak, Ö., McLellan, A. T., Cacciola, J. & Meyers, K. (in press). Using web searches to track interest in synthetic marijuana (aka "herbal incense"). *Drug and Alcohol Review*.
14. Cacciola, J., Meyers, K., Bates, S.E., Rosenwasser, B., Arria, A., & McLellan, A. T. (in press). Assessing Adolescent Substance Abuse Programs with Updated Quality Indicators: The Development of a Consumer Guide for Adolescent Treatment. *Journal of Child and Adolescent Substance Abuse*. NIHMSID: NIHMS442781
15. Kirby, K. C., Versek, B., Kerwin, M. E., Meyers, K., Benishek, L. A., Bresani, E., Washio, Y., Arria, A., & Meyers, R. J. (in press). Developing Community Reinforcement and Family Training (CRAFT) for Parents of Treatment-Resistant Adolescents. *Journal of Child and Adolescent Substance Abuse*. NIHMSID: NIHMS442795