STUDY PROTOCOL

Web-based Addiction Treatment: Cultural Adaptation with American Indians

NIDA R34 DA040831

Principal Investigators
Aimee Campbell, PhD
Traci Rieckmann, PhD

Version Date: October 16, 2019

NCT03363256

ABSTRACT
American Indian/Alaska Native (AI/AN) communities face long-standing disparities across numerous health indicators including higher rates of substance use disorders (SUD), a particularly damaging problem which impacts not only physical and mental health, but also community capacity and cultural connectedness. To address these disparities and the ongoing problem of access to appropriate treatment services, culturally relevant, evidence-based interventions must be developed and successfully disseminated. Urban AI/AN (i.e., those who live off Tribal land in urban centers) have more severe substance use problems and encounter unique barriers to treatment. For example, the majority of Indian-managed substance abuse treatment facilities are located in rural areas (60%), yet 78% of AI/AN reside in urban areas. Given these disparities in disease and treatment access, a web-delivered culturally congruent intervention could be a means of improving treatment outcomes among urban AI/AN. Web-based interventions can address challenges to adoption and implementation, enhance accessibility to and intensity of treatment, and improve outcomes. The investigative team completed a mixed methods acceptability study of an efficacious web-based version of the Community Reinforcement Approach (CRA) (plus contingency management [CM]) called the Therapeutic Education System (TES) (Bickel et al., 2008; Campbell et al., 2014) with urban AI/AN from programs in NIDA's Clinical Trials Network (CTN). Results showed high acceptability for core TES content delivered via computer but also that cultural adaptation would be highly desirable. Research supports culturally-informed interventions for AI/AN. Although urban AI/AN are diverse with regard to tribal affiliation (i.e., language, history cultural activities), many similarities and consistencies in culture, values, and traditions exist. A cultural adaptation of TES for urban AI/AN (TES-NAV) was recently completed with supplemental CTN support. Building upon this developmental work, the goal of the current proposal is to evaluate the preliminary efficacy of TES-NAV to determine whether a future large-scale effectiveness trial is warranted. Specifically, a randomized controlled trial among urban AI/AN (N=80) attending outpatient addiction treatment services will be conducted to (1) estimate preliminary effect size of 12 weeks of TES-NAV on SUD outcomes; (2) explore relevant moderators of TES-NAV outcomes and potential mechanisms of action; and (3) assess cultural factors that may correspond to variation in outcome. A three-month post treatment follow-up will further inform the promise of TES-NAV and key implementation drivers. This work follows the tenets of the Community Based Participatory Research approach and is guided by a long-standing collaborative board. In the final months of the project, the board, other stakeholders and the investigative team will interpret findings and develop the design, methods, and procedures for a R01 application. Aligning with national public health initiatives and NIDA strategic priorities, this proposal targets longstanding SUD health disparities among AI/AN communities, would be among only a handful of controlled trials of any intervention for SUD with urban AI/ANs, and the first of a highly efficacious, culturally adapted, web-delivered treatment.

Background, Significance and Rationale

Research to reduce health disparities and substance use disorders among American Indians/Alaska Natives (AI/AN) is a critical and noted national health priority. AI/AN face disproportionate health disparities compared to other racial/ethnic groups in the United States (1,47) including higher rates of substance use disorders; 16% of AI/AN meet criteria for a substance use disorder compared to 10% in the general population (5,10,35,48-50). Substance use disorders are particularly damaging, impacting not only physical and mental health, but also community capacity and cultural connectedness (10-13). Substance abuse has been linked to poorer health outcomes among AI/AN compared to other American racial subgroups (10,42- 52).

Although numerous factors contribute to persistent health disparities, limited access to adequate care and resource poor systems of care that fail to offer culturally appropriate or science-based services for AI/AN clients are major barriers of concern (10,51-52,55). Treatment for AI/AN with substance use disorders is often limited to the Indian Health Service (IHS), an under-funded program with per capita health expenditures lower than Medicare, Medicaid, federal employees, and the Veteran's Administration (56,57). Service access is also complicated for AI/AN who don't qualify for federal Indian health aid provided by IHS because they are members of one of the 109 tribes no longer recognized by the U.S. government, are not enrolled tribal members, or are unsure of how to engage with their communities (58). Members of the 562 federally recognized tribes are entitled to IHS care, but are often required to travel to rural reservation locations that are especially difficult for urban AI/AN to reach (58-59). To date, the majority of treatment programs operated by the IHS (63%) and Tribal entities (73%) are located in rural areas, leaving a significant gap in services for urban dwelling AI/AN clients, who comprise 78% of the AI/AN population (10). Further, states with large AI/AN populations (e.g., North and South Dakota) often have a single treatment program serving a huge geographic area, making travel for weekly visits to get care prohibitive.

Urban AI/AN (identified as individuals who live away from tribal lands, have diverse tribal affiliation, and variation in ties to their tribal culture [18,60]) present a growing, evolving, and shifting demographic. Many urban AI/AN face difficulties navigating the health care system, based in part on unique histories of migration and mobility, enculturation (i.e., extent of ties to one's cultural norms/values), and variable levels of tribal affiliation (60,61). Although research on urban AI/AN is limited, data suggest that these individuals may experience more severe substance-related health disparities (17). In response, the Urban Indian Health Commission issued a recommendation that public and private sector efforts to improve health care for AI/AN populations recognize and respond to the growing number of AI/AN living in cities and urban areas (58). Thus, availability of and ready access to culturally appropriate and effective addiction treatment for urban AI/AN is of particular concern.

Previous research has shown that evidence-based treatments (EBTs) improve patient outcomes, including engagement, retention, and health status (62-68); however, there is a woeful lack of research on specific treatments designed for AI/AN or adaptation of existing EBTs for AI/AN (47,69-71). In the past decade, two published literature reviews questioned the quality of behavioral health for AI/AN clients while noting the lack of information about the availability and use of empirically supported treatments (72-73). Further, methodological challenges, such as small sample sizes and dispersed populations, and lack of AI/AN representation in federally-funded research serve to limit development of culturally relevant EBTs. Tribal values of generosity and respect also might not allow for certain clinical trial designs which delay or deny services (76), and AI/AN clients and staff often distrust traditional research processes given experiences of historical abuse and oppression (5,37,70,77-78). Thus, research continues to document a significant shortage of culturally relevant EBTs for AI/AN clients (35,46,79-80).

Technology-based interventions hold the promise of minimizing barriers to culturally appropriate EBTs for urban AI/AN with substance use disorders (81-82). Web-delivered interventions may: a) increase access to efficacious practices (27,81); b) enhance consistency and fidelity of delivery of such practices without increasing demands on staff time (84); c) allow for flexibility and individualized learning (85); and d) provide a more private venue appropriate for sensitive topics (86). Web-delivered tools also improve access to care by leveraging technology's 24/7 availability outside of standard treatment hours to vastly improve service delivery times, locations, and support – a critical need for urban AI/AN clients (21,87-88). Research supports the use of computerized cognitive behavioral therapies (19,83,89), web-based delivery of the community reinforcement approach (1), and motivational interviewing to treat substance use disorders (90). The use of these interventions may be especially helpful in broadening the availability of EBTs to AI/AN.

Treatments developed specifically for cultural or ethnic groups and those adapted to be more culturally congruent have been shown to produce better outcomes (91). Cultural adaptation is especially important in implementation of EBTs to treat substance abuse (11,92-94). Specifically, AI/AN populations utilize coping processes unique to their culture (95-97) and benefit from treatments that reflect their experience and heritage (11,38-45). AI/AN disparities in substance use disorders have been attributed to a lack of connection to tradition, a history of oppression, and cultural eradication (98-99). Thus, adaptation of EBTs to integrate culturally relevant factors and better represent AI/AN values and traditions is a necessary component of effective treatment (100).

This study targets barriers of treatment accessibility and use of culturally-specific EBTs among urban AI/AN by conducting a randomized controlled pilot study of an adapted version of the web-delivered Therapeutic Education System (TES Native Version or TES-NAV) among 80 urban AI/AN seeking outpatient substance abuse treatment. TES is an effective, web-based version of the Community Reinforcement Approach plus contingency management (27-28,30). It is self-directed and employs interactive instruction to convey skills and knowledge that support abstinence. Prize-based contingency management is included within the program to increase initial engagement and promote abstinence. TES is delivered via the internet, allowing users to access the program from any location with a computer/smart phone and internet access. Our team completed an acceptability study of TES (32) with 40 urban AI/AN, demonstrating approval of core content deployed using computer-assisted technology. Qualitative results suggested adaptation consisting of cultural tailoring and infusion of relevant context and accurate representations of AI/AN would improve congruence and relevance. With support from NIDA's Clinical Trials Network (CTN), the research team recently completed adaptation of TES with urban AI/AN.

This study uses rigorous and innovative scientific methods, as well as a technology-driven advancement in service that expands access and engages an underserved population in state-of-the art evidence-based care. The paucity of randomized trials EBTs among AI/AN make the current proposal both unique and essential to addressing long-standing health disparities and advancing substance use disorder treatment research among AI/AN. The study utilizes both a science-based treatment development process (i.e., stage model) and a Community-Based Participatory Research approach (CBPR). This culturally appropriate methodology combines the development of sustained, collaborative partnerships with AI/AN stakeholders within a rigorous scientific process. Further, the study is the first to test an adapted web-delivered addiction treatment intervention with urban AI/AN. Given the ongoing demographic shift with an increasing population of urban AI/AN (and fluidity of residence on and off tribal lands), testing culturally relevant EBTs with urban AI/ANs is both innovative, scientifically sound and important for developing effective health services for this population.

Specific Aims and Hypotheses

Specific Aim 1: Conduct a randomized controlled pilot study with urban AI/AN to estimate the effect of TES-NAV+TAU (n=40) compared to TAU (n=40) on the primary outcome of number of consecutive weeks of drug/alcohol abstinence and relevant secondary outcomes: a) abstinence in last 4 weeks of treatment; b) post-treatment abstinence (proportion days abstinent at 3-month follow-up); c) retention (time to drop-out); d) coping skills; e) social functioning; and f) HIV risk behavior.

Primary Outcome Hypothesis: TES-NAV+TAU will promote greater number of consecutive weeks of drug and alcohol use abstinence compared to the TAU arm during the 12 weeks of treatment.

Secondary Outcomes Hypotheses: The effect of randomization to the TES-NAV+TAU arm is hypothesized to (a) increase the proportion abstinent in the last 4 weeks of treatment; (b) increase the proportion of days abstinent three months post treatment; (c) increase treatment retention; (d) improve coping skills; (e) improve social functioning; and (f) increase proportion of consistent condom users will be estimated.

Specific Aim 2: Estimate putative moderator (e.g., baseline substance use severity, demographic characteristics) and mediator (e.g., coping, social connectedness) mechanisms of action.

Specific Aim 3: Describe cultural factors (enculturation, cultural/ethnic identity, Tribal affiliation) that may correspond to variation in clinical outcomes (i.e., longest consecutive weeks of abstinence) and acceptability; qualitative interview data will be collected to further contextualize quantitative findings.

Description of subject population

Subjects will be adults (18 and older), who self-identify as American Indian or Alaska Native, and are seeking treatment for a substance use disorder (alcohol or drug) at the participating recruitment site (Native American Rehabilitation Association of the Northwest [NARA] located in Portland, OR).

Only clients who identify as AI/AN will be eligible to participate (100% AI/AN). There are no exclusion criteria based on sex or gender. Given the current demographic data available from the participating recruitment site, we expect approximately half of the sample to be female.

NARA serves approximately 400 clients per year, 52% are female. Among clients entering treatment, 33% presented with a primary stimulant use disorder, 29% with a primary alcohol use disorder, 28% with co-occurring stimulant and alcohol use disorders, and 10% with opiate use disorder. The demographics of NARA's Outpatient Treatment Center will allow for recruitment of a diverse sample of urban AI/AN participants with regards to tribal affiliation and primary substance of abuse. Further, there are sufficient numbers to recruit and enroll approximately four participants per month to achieve a study sample of N=80 over 21 months.

Recruitment Procedures

All recruitment activities will take place within the participating treatment site (NARA), an outpatient substance use disorder treatment program located in Portland, OR. NARA's Outpatient Treatment Center offers a standard mix of alcohol and drug education groups, relapse prevention skills training, and process group therapy as well as mental health counseling for survivors of trauma using group therapy practices such as Seeking Safety. NARA also incorporates optional Native American cultural activities such as traditional drumming circles, Red Road to Sobriety groups, and local powwow participation. The typical course of treatment is approximately 4 months (6-9 groups/week and weekly or bi-weekly individual sessions).

Potential participants will be informed of the study at NARA treatment entry (or within the first 30 days of treatment). A variety of strategies may be employed to ensure that all new intakes are informed about the opportunity to participate in the study. For example, NARA intake workers may introduce the patient to a study Research Assistant so they can learn about the opportunity to participate or arrange a follow-up time to do so. Alternatively, all new intakes can be provided a flyer providing a brief description of the trial and a permission to contact form which they can sign to indicate they would like to learn more about the trial. They can provide their contact information and a Research Assistant will then contact them (assuming the patient and Research Assistant are unable to speak at the patient's time of intake). Note that by completing the permission to contact form, patients are not consenting to participate in the trial but are giving permission for research staff to contact them (either in-person at NARA or via phone to inform them about more details of the study). NARA staff will also be informed about the study so that they can address questions about/interest in the study by patients.

IRB-approved study flyers and posters may be posted within NARA about how to contact research staff to learn more about the opportunity to participate in the study.

Inclusion / Exclusion Criteria

Inclusion Criteria	**Method to Ascertain**
18 years of age or older	Screener; Demographics Form
Self-identify as American Indian or Alaska Native	Screener; Demographics Form
Self-report a substance use problem (drug or alcohol); having a substance use disorder is not an inclusion criteria, but it will be assessed	Screener; DSM-V Checklist
Report at least one day of drug or alcohol use in the last 30 days (before baseline) or, if released from an inpatient facility (e.g., jail, inpatient treatment, detox) within the last 30 days, report at least one day of drug or alcohol use in the last 60 days (before baseline).	Baseline' TLFB
Exclusion Criteria	
Planned treatment episode of less than 3 months	Screener
Insufficient ability to provide informed consent to participate or lack sufficient ability to use English to participate in the consent process, intervention, or research assessments	Informed consent interview and consent quiz

Consent Process
During the initial study contact, trained research staff will conduct a (approximately) 5-10-minute brief screening interview to assess if participants meet eligibility criteria for the study and do not meet exclusionary criteria for the study. The screener can be conducted in person or over the phone. Research staff will provide a brief description of the study (information sheet) and obtain verbal consent for the brief screening interview. Verbal consent is requested given the minimal risks to participants. Only information necessary to assess individuals' eligibility will be obtained at this initial screening (e.g., where they heard about the study, sex, age in years, date of most recent substance use, treatment duration, and primary substance). Further, the only record linking the potential participant and the research would be the consent document. Thus, a verbal consent process (waiver of consent documentation) reduces the potential harm resulting from a breach of confidentiality. A copy of the information sheet will be provided at participants' discretion. If a participant is eligible and interested in joining the study, s/he will be asked to complete the study Informed Consent procedures.

Informed consent procedures should be conducted within 30 days of the date that participants enter NARA for a new treatment episode. Every effort will be made to conduct consent procedures as soon as possible after a patient enters NARA; however, a 30-day window allows for a broader array of eligible patients to be considered for study participation. The trained research assistant/study coordinator will review and discuss the Informed Consent and administer the Consent Comprehension Quiz.

A waiver of documentation of consent is requested for the screener only. The screener collects only information to determine basic eligibility (see attached screener questions). If the potential participant is eligible and interested in participating following the screener, a baseline assessment visit will be scheduled and name/contact information collected for the purpose of giving the participant a reminder message. Collecting a consent signature and printed name would increase the risk to subject confidentiality because if the participant is not eligible or not interested in participating after completion of the screener no name is needed.

Study Procedures
<u>Baseline Assessment</u>
After signing Informed Consent, participants will be asked to complete the baseline assessments with a research staff person and provide a urine sample. We expect that participants will complete
Informed Consent and baseline assessment in the same day. Baseline assessment will take approximately 2 hours. If s/he does not finish the baseline assessments in one day, s/he will asked to return as soon as possible (and preferably the following day but within the eligibility window of 30 days post treatment intake). In this case, another urine sample will be collected at the subsequent visit and the day that the intake is completed will be counted as the study intake day.

<u>Randomization</u>
After completing the baseline assessment, participants will be randomly assigned to either (1) treatment-as-usual (TAU) or (2) TAU + TES-NAV. Randomization will be used to provide balance with respect to measured and unmeasured patient characteristics across the treatment arms. Randomization will be stratified by drug-positive/negative at baseline (alcohol or drug) and sex. Short periods of abstinence at treatment entry is common and have been found to be a strong predictor of outcome (30,132-133) suggesting the importance of balancing on this variable and including it as a covariate in the primary outcome analysis (134). Results from a prior TES effectiveness study indicated that sex may be a predictor of outcome (30). The randomization sequence will be unknown to research staff, but treatment arm assignment will not be masked. The randomization schedules will consist of balanced blocks within strata to ensure relative equality of assignment across treatment arms. The study statistician will manage and monitor randomization schema. Research staff, including PIs, will not be privy to randomization schema or balance.

<u>Assessment Visits</u>
All participants will be asked to complete a 12-week treatment phase.

Treatment Phase: Participants in both treatment arms will be asked to meet twice per week with the research staff and provide a urine sample at each visit; at one of the two weekly visits, participants will also be asked to complete the TLFB. In addition to brief weekly visits, participants will be asked to complete longer assessments

at week 6 and week 12 (approximately 1 hour), similar in content to the baseline assessment. (See Measurement Table)

Follow Up: Participants will be asked to return to the treatment program to complete a follow up assessment at week 24 (approximately 90 minutes). This assessment is similar in content to the baseline assessment, including collection of a urine specimen. (See Measurement Table)

In addition, at the week 24 follow-up visit, a subgroup of participants will be randomly selected to participate in an additional interview to ask about their experiences in the study. This interview will last about 30 minutes. This interview will be digitally audio recorded to accurately capture responses to questions for the purpose of analysis. The recordings will be transcribed (that is, what was said in the recordings is written as text). Once transcribed the audio recordings will be destroyed (within no more than 3 years). Any words said during the interview may be used, anonymously, in the presentation of research.

The digital recordings of interviews will be sent to a professional transcription service and will not contain personal health information. Interviews will be identified only by a numerical code. The recordings will be uploaded via a secure website. The transcription service will return a copy of the transcribed interview in approximately 10 days. Digital recordings will be kept by the transcription service until project completion and invoice payment and then destroyed.

The NYSPI study site will maintain the digital recordings through the end of the study and then they will be destroyed. The transcribed interviews will be maintained for a minimum of 7 years.

Study Interventions

Treatment-as-usual TAU: All participants will receive standard outpatient alcohol and drug use treatment at the study site (NARA) during the 12 week treatment phase of the study, regardless of randomization arm. The nature of TAU provided to participants will be documented using a TAU Tracking Form (e.g., duration and frequency of group and individual sessions; inclusion of HIV prevention content; provision of pharmacotherapy for substance use disorders, medical disorders or psychiatric disorders). NARA's Outpatient Treatment Center offers a standard mix of education groups, relapse prevention skills training, and process group therapy, as well as mental health counseling for survivors of trauma using group therapy practices such as Seeking Safety (6-9 groups/week and weekly/bi-weekly individual sessions). NARA incorporates optional AI/AN cultural activities such as traditional drumming, local powwow participation, and the Red Road recovery groups. The recommended duration of outpatient treatment at NARA is 4 months, similar to outpatient treatment programs in general. Participants will be enrolled into the study within their first month of TAU, thus the study treatment phase will overlap completely with TAU. Once the 12 week treatment phase of the study is complete, all participants will continue with standard care as usual at NARA.

TES-NAV (psychosocial intervention + contingency management): Participants randomized to TAU + TES-NAV arm will receive TES-NAV in addition to TAU. Participants will be asked to complete 4 TES- NAV modules (or topics) per week during the 12-week treatment phase. Each module requires approximately 20 minutes to complete. Participants will be provided with access to TES-NAV on their mobile smart phone (as available), as well as on tablets at the treatment program. TES-NAV has a back-end system that tracks participant activity.

Participants need not have prior experience to use TES-NAV. The program is self-directed and includes training that instructs the user how to navigate the program by providing an overview of goals, organization, how to respond to questions, etc. After the training, users will have access to 26 TES-NAV modules. Once they've completed all modules they will be able to repeat modules that are most relevant or for which they'd like additional practice. Content focuses on relapse prevention skills, social functioning, and HIV and other sexually transmitted infection prevention (see attached Table for a list of modules). TES-NAV includes an electronic reporting system (with appropriate password protection and an encrypted Internet connection via Secure Sockets Layer (SSL), the de facto standard for securing communications on the Web) summarizing patients' activity.

Participants randomized to receive TES-NAV will also be able to earn incentives contingent upon objective evidence of alcohol and drug abstinence (urine drug and EtG screens) and completion of modules in

accordance with an intermittent schedule of reinforcement shown to be efficacious in prior studies - a “fishbowl” prize system (140). Participants can earn draws in the following ways: (1) providing drug- or EtG-negative samples (collected twice per week) for their primary substance. Each negative sample results in a draw from the computerized ‘prize bowl’, which allows for automation of prize calculation and tracking. The number of draws will increase by 1 for each week in which the submitted samples are negative (and will reset to 1 after an unexcused absence or submission of a positive sample). (2) To offset low rates of reinforcement early in the study, when number of draws is low, a large prize will be awarded when the participant first achieves 2 consecutive weeks of abstinence from their primary substance. (3) Participants will earn 2 bonus draws each time they are negative for all substances (alcohol and drugs) to promote abstinence from all substances. (4) Participants will be provided with a single draw for each module completed (up to 4 per week).

Half of the draws in the prize bowl will be non-winning and read “good job”. The other “winning” half of draws will be structured such that 41.8% of draws will be for ‘small’ prizes worth about $1 (e.g., make-up, socks, restaurant gift cards), 8% will be for large prizes worth about $20 (e.g., watches, clothing), and 0.2% will be for jumbo prizes worth up to $100 (e.g., iPod, head phones). The maximum dollar amount in prizes that can be earned is approximately $625; however, based on prior trials the amount will likely be 40-50% of possible earnings. Intermittent prize-based, “fishbowl” schedules of reinforcement have been shown to be of comparable efficacy to fixed, voucher-based escalating reinforcement schedules (141), have repeatedly been demonstrated to be effective, cost-effective and feasible to implement in a wide variety of outpatient programs (142-143), and have been shown to create a positive culture within programs (144). Prizes will be stored in a locked cabinet, on display to participants. Research staff will be responsible for ensuring that the prize cabinet is well-stocked and will have flexibility regarding the types of prizes offered.

Clinician Involvement

NARA clinicians will provide TAU to participants in both treatment arms to reflect real-world integration of TES-NAV. To limit cross contamination and training burden, clinicians will not receive specific training on TES-NAV, but will be informed of the nature of the study and the general therapeutic content of TES-NAV (i.e., Community Reinforcement Approach and contingency management). The risk for cross treatment contamination is minimal because the experimental arm is comprised of a web-delivered intervention whereby participants complete the intervention on their own and often offsite. Treatment program clinicians will be asked to participate in a one-hour focus group post-study (Year 3, Month 9) to receive preliminary outcomes, share feedback on client experiences, implementation of TES-NAV, and make recommendations regarding design and methods of a larger trial.

Study Retention

All participants will be tracked and asked to complete study research visits regardless of whether they are currently engaged in care. High follow-up rates are important to minimize missing data in the key outcome analyses, and the methods to be employed here were developed and refined in our previous multi-site effectiveness trial of TES, where 90% follow-up rates were achieved 12, 24, and 36 weeks after randomization (24). A “tool box” of strategies will be engaged to ensure the highest possible participant assessment completion rates: 1) Comprehensive contact information from all participants at enrollment to include cell (text), e-mail and social media contacts (e.g., Facebook); contact information of friends/family, and social security and driver’s license numbers for use in standard search engines. Contact information will be updated at each study visit; 2) Voicemail, text, and email reminders; 3) Reminder letters mailed within two weeks of main study visits (certified mail/fed-ex may be used to confirm delivery); 4) Home visits and other off-site visits, following detailed safety and confidentiality guidelines, to attempt contact, as well as telephone visits when necessary. Follow-up procedures are detailed in the study consent.

End of Study Treatment

Following the 12 week treatment phase, participants will continue in treatment-as-usual as normal. For participants no longer in treatment-as-usual at any of the research study visits, research staff will be prepared to offer referrals to other treatment or services, as needed. A referral list, to be kept up to date and vetted, will be developed and available for this purpose.

Criteria for Early Discontinuation

Although the risks expected from this study are minimal, the population studied in this trial can be high risk given the nature of their substance use disorders and other mental and physical health challenges. Risks of clinical deterioration and psychological/psychiatric distress must be anticipated. Participants will be discontinued from the treatment phase of the study if they are discharged from the participating treatment program (NARA), however they will still be asked to complete research study visits (as appropriate). Participants will be discontinued from the study if the principal investigators and/or NARA staff determine it is in the best of interest of the participant.

Urine Drug Screen Procedures

Urine samples will be collected at baseline, twice weekly during the 12-week treatment phase, and at the 3-month follow-up interview to screen for recent alcohol and drug use and for contingency management purposes. Urine will be tested for 10 drugs using a dipcard screen (cocaine, opiates, MDMA, amphetamines, cannabinoids, methamphetamines, benzodiazepines, oxycodone, methadone, and barbiturates) and for ethyl glucuronide (EtG). EtG is a biomarker assessing alcohol use (direct metabolite) and can be measured using a rapid dipcard test. A cut-off of <300 ng/mL is sufficient to capture drinking up to 5 days prior and is not associated with inadvertent alcohol exposure (157). We will use commercially available tests.

Assessment Instruments

Participant Characteristics (PC) is used to collect information on demographic and other psychosocial characteristics, including: age, sex, gender, sexual orientation, race/ethnicity, time spent living on a reservation, education, employment status, monthly income, dependent children, insurance status, criminal justice status, chronic medical problems, use of medical cannabis, and internet access.

Timeline Follow-Back (TLFB) (135) assesses self-reported alcohol and other drug use (frequency, quantity) using calendars and memory aids to enhance recall. The TLFB has good psychometric properties, including test-retest reliability with multiple populations, and content, criterion, and construct validity across multiple related measures (136). Two additional questions will assess intensity and number of days of craving.

TAU Tracking Form (TTF). This form is completed by research staff on a weekly basis during the 12-week treatment phase to capture services received in TAU, including modality, frequency, and number of minutes.

Coping Strategies Scale (CSS) (137) is a 23-item, self-report measure (originally adapted from the Processes of Change) (138) assessing change processes, coping skills, and problem-solving related to urges to use substances. It has good reliability across samples (alpah=.83 to .87).

WHO Quality of Life-BREF (QoL) (139). The WHO QoL scale assess one's overall perception of quality of life as well as health, psychological health, and social life.

HIV Risk Taking Behavior Scale (HRBS) (140) is a brief 11 item measure assessing drug and sexual risk behaviors for HIV and other STIs and shown to be a valid and reliable measure for evaluating risk reduction interventions. Questions assessing condom use intention (availability, likelihood, insistence) and, for female participants, pregnancy control methods, are also included.

American Indian Enculturation Scale (AIES) (142) is a 17 item, 7-point scale, self-report measure assessing involvement/adherence with traditional behavioral and spiritual activities with excellent reliability (alpha=.91), convergent and discriminant validity among AI/AN clinical samples (143-145). The Cultural Affinity subscale (5 items) from the Native American Enculturation Scale (141) will be included.

The Multi-Group Ethnic Identity Measure (MEIM) (146) is a 15 item, 4-point scale, self-report measure assessing affirmation and belonging to one's AI/AN ethnic group or heritage (alpha=.80 or higher).

Historical Loss Scale (HLS) (120) is a 12-item, 6-point scale, self-report measure assessing type of loss (e.g., language, land) and frequency of loss for AI/AN with excellent reliability (alpha=.94).

Social Connectedness Scale (SCS) (147-148) is a 20 item, 6-point scale, self-report assessing psychological belonging or interpersonal closeness with good reliability among a diverse sample (alpha=.91).

Non-study Service Utilization (NSU) is a modified version of the Treatment Services Review (149) and collects services not part of TAU (e.g., medical, detox, addiction medications, psychiatric). Validity of self- reported service use has been demonstrated (150-153).

DSM-5 Checklist (DSM) (154) is a semi-structured interview that provides current diagnosis for alcohol and other substance use disorders and level of severity based on DSM-5 diagnostic criteria.

Patient Health Questionnaire (PHQ) (155) was developed for use in primary health settings and screens for DSM psychiatric diagnosis of major depression and generalized anxiety. The PHQ has acceptable reliability with mental health professional diagnoses among American Indians (156). The 20 item (+ assessment of PTSD

Criterion A, traumatic event) PTSD Checklist-5 (PCL-5) will be used to screen for Posttraumatic Stress Disorder (PTSD) (157).
Kessler 10 (K10) (158) is a brief, 10-item self-report measure of general psychiatric distress. It has good reliability and is used in World Health Organization mental health surveys in 30 countries.
Fagerstrom Test for Nicotine Dependence (FTN) (164) is a 6-item ordinal measure of nicotine dependence related to cigarette smoking, including quantity of cigarette consumption, severity, and compulsion to use. An additional question assesses the use of medication to help stop smoking.
Momentary Self-regulation Questionnaire (MSQ) (165) is a 12-item measure (5-item Likert-type scale) to assess self-regulation. This measure was specifically developed and validated for use with technology-based interventions.
TES-NAV Acceptability/Feedback Form (TAF) is a 7-item self-report measure comprised of indicators of TES-NAV acceptability on 10-point scales: interesting, useful, new information, easily understood, satisfaction, relevance, cultural congruence and fit.
Qualitative Interviews will be conducted with TES-NAV clients (n=20) at the follow-up visit to elicit personal accounts of their experience using the program, acceptability of the program, examples of how the intervention was culturally relevant or not, and suggestions for improvement. These interviews are critical to understanding the feasibility of a larger trial.

Treatment to be provided at the end of the study
All participants will receive TAU at the participating treatment site (NARA). No additional treatment will be provided following participation in the research study.

Clinical treatment alternatives
TAU (treatment-as-usual) will be offered at the participating treatment site which the participant is attending. The participant must be enrolled in the treatment program to be eligible to participate in the research study. Outpatient psychosocial treatment is the standard of care for substance use disorder treatment in the community.

Risks / Stress / Discomfort
In general, risks associated with research comprised of behavioral interventions are minimal. The research assessments may lead to some psychological discomfort as participants discuss sensitive areas related to high risk drug or sexual behaviors. They may feel uncomfortable answering such questions and/or become distressed when faced with reviewing their involvement in high risk behaviors. TES-NAV should not induce any more discomfort than other treatments offered as part of outpatient substance use disorder treatment.

TES-NAV may be completed on (1) personal smartphones, or (2) tablets at the treatment program. There are no additional risks associated with completing TES-NAV on tablets at the treatment program, as no PHI is entered and the research staff will control access to the tablets.

If a participant decides to complete the intervention on a personal smartphone, there will be evidence of the TES-NAV application ("App") on the phone which someone else could potentially see if they had access to the personal electronic device. For smartphones with iOS, the participant will need to use their log-in for the "App Store" to download TES-NAV. For Android smartphones, the hosting service will have an Internet Protocol address (numerical label assigned to each device that accesses the internet) but this is not traceable to a smartphone or to the participant directly.

Procedures for minimizing risks
The written consent form will indicate the potential risks of participating in the study, including the visibility of the TES-NAV App on their phone and risk associated with each type of smartphone operating system. Participants will be advised that they do not have to answer research study questions with which they do not feel comfortable. The consent form will also indicate that participants are free to discontinue the study at anytime for any reason with no explanation. If participants become overly distressed, they will be directed to clinical staff working at their treatment program. In addition, study research staff will elicit participant reporting of any adverse events (including increased substance use) at all study assessment visits. Adverse events assessment will initiate with participant consent and follow-up will continue through 30 days after the final study

visit. A study investigator will review all reportable adverse events for seriousness, severity, and relatedness weekly.

Protection of Confidentiality
Procedures to assure confidentiality will be strictly observed. All participant personal information will be kept confidential and will not be released without written permission, except as required by law. Records will only be available to research staff, and Federal, State and Institutional personnel (who may review records as part of the routine audits). All information that is entered into the electronic databases is kept secure in accordance with federal guidelines and can only be accessed by research staff.

To maintain participant confidentiality, all data will be 1) kept in confidential locked files or on encrypted computer servers; 2) identified by participant number only; and 3) kept separately from identifying information on consent forms and locator forms. A list referencing study identification number to name will be kept under lock and key in a separate, location in the Site PI's office. No identifying information will be disclosed in reports, publications or presentations. The consent form will specifically state the types of information that are required to be reported and the fact that the information will be reported as required.

These include suspected or known sexual or physical abuse of a child or elder, or threatened violence to self and others.

Per Section 2012 of the 21st Century Cures Act as implemented in the 2017 NIH Certificates of Confidentiality Policy, all ongoing or new research funded by NIH as of December 13, 2016 that is collecting or using identifiable, sensitive information is automatically issued a Certificate of Confidentiality (CoC). A federal CoC protects participants against disclosure of any sensitive information or illicit behavior (e.g., drug use).

Compensation
All participants will receive the following compensation: $5 for screening, $30 for baseline assessment, $20 for assessment at week 6, $20 for assessment at week 12, and $30 for assessment 3 months post treatment (week 24). Participants randomly selected to complete a post-treatment qualitative interview will receive an additional $25. All participants will receive $2/week for urine drug and EtG screening during the 12-week treatment phase (total of $24). Participant compensation is designed to encourage protocol participation and these incentives are provided to all participants. Thus, the maximum compensation a participant could receive for research visit procedures is $154. To avoid competing with the potential treatment effect of the contingency management component, compensation for providing urine samples will be given to all participants at week 6 and week 12.

Contingency management (procedures described earlier in the study procedures section) is designed to reinforce abstinence, and those incentives are part of the TES-NAV intervention procedures and only provided to participants randomized to the TAU + TES-NAV arm. Participants in TES-NAV will be able to earn draws for prizes using an electronic "fishbowl" in the TES-NAV system for the following behaviors:
(1) urine tests negative for primary substance (number of draws will increase by 1 each week in which all submitted samples are free of the primary substance and will reset to 1 after submission of a sample positive for the primary substance); urine tests negative for all substances (2 bonus draws), and completion of modules (up to 4 per week). To offset low rates of reinforcement early in the study, a large prize will be awarded when the participant first achieves 2 consecutive weeks of abstinence from their primary substance. About half of the draws will be non-winning and will read "good job". The other "winning" half of draws will be structured such that 41.8% of draws will be for 'small' prizes worth about $1, 8% will be for large prizes worth about $20, and 0.2% will be for a jumbo prize worth up to $100. The maximum dollar amount of prizes that could be earned if all possible draws are met is $625 (this will not be in the form of cash but prizes). Based on prior studies, however, most participants will earn approximately $280-400.

References

1. National Center for Health Statistics. (2011). Health, United States, 2010: In Brief. Hyattsville, MD.
2. Beals, J., Manson, S. M., Whitesell, N. R., Spicer, P., Novins, D. K., Mitchell, C. M., et al. (2005). Prevalence of DSM-IV disorders and attendant help-seeking in 2 American Indian reservation populations. Archives of General Psychiatry, 62(1), 99.
3. Chartier, K., & Caetano, R. (2010). Ethnicity and health disparities in alcohol research. Alcohol Research & Health: The Journal of the National Institute on Alcohol Abuse and Alcoholism, 33(1-2), 152-160.
4. Gittelsohn, J. & Rowan, M. (2011). Preventing diabetes and obesity in American Indian communities: the potential of environmental interventions. The American Journal of Clinical Nutrition, 93(5), 1179S–1183S.
5. Gone, J. P. & Trimble, J. E. (2012). American Indian and Alaska Native mental health: Diverse perspectives on enduring disparities. Annual Review of Clinical Psychology, 8, 131–160.
6. Gone, J. P. (2012). Indigenous traditional knowledge and substance abuse treatment outcomes: The problem of efficacy evaluation. The American Journal of Drug and Alcohol Abuse, 38(5), 493–497.
7. Johnson, A.S., Hu, X., Sharpe, T. T., & Dean, H. D. (2009). Disparities in HIV/AIDS diagnoses among racial and ethnic minority youth. The Journal of Equity in Health, 2(1), 4-18.
8. Sequist, T. D., Cullen, T., Bernard, K., Shaykevich, S., Orav, E. J. & Ayanian, J. Z. (2011). Trends in quality of care and barriers to improvement in the Indian Health Service. Journal of General Internal Medicine, 26(5), 480–486.
9. CDC. (2012). Health disparities in HIV/AIDS, Viral Hepatitis, STDs, and TB: American Indians and Alaska Natives. Accessed January 29, 2012 from http://www.cdc.gov/nchhstp/healthdisparities/AmericanIndians.html
10. Substance Abuse and Mental Health Services Administration (SAMHSA). (2010). Results from the 2009 National Survey on Drug Use and Health: Volume I. Summary of National Findings (Office of Applied Studies, NSDUH Series H-38A, HHS Publication No. SMA 10-4586Findings). Rockville, MD.
11. Legha, R. K., Novins, D. (2012). The role of culture in substance abuse treatment programs for American Indian and Alaska Native communities. Psychiatric Services, 63(7), 686-92.
12. Stone, R. A. T., Whitbeck, L. B., Chen, X., Johnson, K. & Olson, D. M. (2006). Traditional practices, traditional spirituality, and alcohol cessation among American Indians. Journal of Studies on Alcohol and Drugs, 67(2), 236.
13. Storck, M., Beal, T., Bacon, J. G., Olsen, P., et al. (2009). Behavioral and mental health challenges for indigenous youth: research and clinical perspectives for primary care. Pediatric Clinics of North America, 56(6), 1461.
14. Norris, T., Vines, P. & Hoeffel, E. (2012). The American Indian and Alaska Native Population: 2010. Washington, DC: United States Census bureau.
15. O'Connell, J. M., Novins, D. K., Beals, J. & Spicer, P. (2006). Disparities in Patterns of Alcohol Use Among Reservation-based and Geographically Dispersed American Indian Populations. Alcoholism: Clinical and Experimental Research, 29(1), 107–116.
16. Evans, E., Anglin, M. D., Urada, D. & Yang, J. (2011). Promising practices for delivery of court-supervised substance abuse treatment: Perspectives from six high-performing California counties operating Proposition 36. Evaluation and Program Planning, 34(2), 124–134.
17. Lowe, J., Liang, H., Riggs, C., Henson, J. & Elder, T. (2012). Community Partnership to Affect Substance Abuse among Native American Adolescents. The American Journal of Drug and Alcohol Abuse, 38(5), 450–455.
18. Novins, D. K., Moore, L. A., Beals, J., Aarons, G. A., Rieckmann, T. & Kaufman, C. E. (2012). A Framework for Conducting a National Study of Substance Abuse Treatment Programs Serving American Indian and Alaska Native Communities. The American Journal of Drug and Alcohol Abuse, 38(5), 518– 522.
19. Kiluk, B. D., Sugarman, D. E., Nich, C., Gibbons, C. J., Martino, S., Rounsaville, B. J. & Carroll, K. M. (2011). A methodological analysis of randomized clinical trials of computer-assisted therapies for psychiatric disorders: toward improved standards for an emerging field. American Journal of Psychiatry, 168(8), 790–799.

20. Marsch, L. A. (2012). Leveraging technology to enhance addiction treatment and recovery. Journal of Addiction Disorders, 31(3):313-8.
21. Raghupathy, S., & Go Forth, A. L. (2012). The HAWK2 Program: A Computer-Based Drug Prevention Intervention for Native American Youth. The American Journal of Drug and Alcohol Abuse, 38(5), 461- 467.
22. Stitzer, M. & Petry, N. (2006). Contingency management for treatment of substance abuse. Annual Review of Clinical Psychology, 2, 411–434.
23. Petry, N. M., Peirce, J. M., Stitzer, M. L., Blaine, J., Roll, J. M., Cohen, A., Obert, J., et al. (2005b). Effect of prize-based incentives on outcomes in stimulant abusers in outpatient psychosocial treatment programs: a national drug abuse treatment clinical trials network study. Archives of General Psychiatry, 62(10), 1148.
24. Budney, A. J., & Higgins, S. T. (1998). Therapy manuals for drug addiction, a community reinforcement plus vouchers approach: Treating cocaine addiction. Rockville, MD: National Institute on Drug Abuse.
25. Hunt, G. M., & Azrin, N. H. (1973). A community-reinforcement approach to alcoholism. Behavioral Research Therapy, 11(1), 91-104.
26. Miller, W. R., Meyers, R. J., & Hiller-Sturmhofel, S. (1998). The community-reinforcement approach. Alcohol Research and Health, 23, 116-121.
27. Bickel, W. K., Marsch, L. A., Buchhalter, A., & Badger G. (2008). Computerized behavior therapy for opioid dependent outpatients: A randomized, controlled trial. Experimental and Clinical Psychopharmacology, 16, 132-143.
28. Marsch, L. A., Guarino, H., Acosta, M., Aponte-Melendez, Y., Cleland, C., Grabinski, M., Brady, R., & Edwards, J. (In press). Web-based behavioral treatment for substance use disorders as a partial replacement of standard methadone maintenance treatment. Journal of Substance Abuse Treatment, 46(1), 43-51.
29. Campbell, A. N. C., Nunes, E. V., Miele, G. M., Matthews, A., Polsky, D., Ghitza, U., et al. (2012). Design and methodological considerations of an effectiveness trial of a computer-assisted intervention: An example from the NIDA Clinical Trials Network. Contemporary Clinical Trials, 33(2), 386-395.
30. Campbell, A. N. C., Nunes, E. V., Matthews, A. G., Stitzer, M., Miele, G. M., Polsky, D., Turrigiano, E., Walters, S., McClure, E. A., Kyle, T. L., Wahle, A., VanVeldhuisen, P., Goldman, B., Babcock, D., Stabile, P. Q., Winhusen, T., Ghitz, U. (2014). Internet-delivered treatment for substance abuse: A multi-site randomized controlled clinical trial. American Journal of Psychiatry, 171, 683-690.
31. Chaple, M., Sacks, S., McKendrick, K., Marsch, L.A., Belenko, S., Leukefeld, C., et al. (In press). Feasibility of a computerized intervention for offenders with substance use disorders. Journal of Experimental Criminology.
32. Campbell, A. N. C., Turrigiano, E., Moore, M., Miele, G., Rieckmann, T., Kropp, F., et al. (under review). Acceptability of a web-based Community Reinforcement Approach for substance use disorders among American Indian/Alaska Native clients enrolled in treatment.
33. National Institute on Alcohol Abuse and Alcoholism [NIAAA] (2002). Alcohol and Minorities: An Update. Alcohol Alert, 55. Rockville, MD: Author.
34. Coyhis, D., & Simonelli, R. (2008). The Native American healing experience. Substance Use & Misuse, 43, 1927-1949.
35. Greenfield, B. L., & Venner, K. L. (2012). Review of Substance Use Disorder Treatment Research in Indian Country: Future Directions to Strive toward Health Equity. The American Journal of Drug and Alcohol Abuse, 38(5), 483–492.
36. Novins, D. K., King, M., Stone, L. S. & others. (2004). Developing a plan for measuring outcomes in model systems of care for American Indian and Alaska Native children and youth. American Indian and Alaska Native Mental Health Research, 11, 88-98.
37. Walters, K. L., Simoni, J. M., & Evans-Campbell, T. (2002). Substance use among American Indians and Alaska Natives: Incorporating culture in an “indigenist” stress-coping paradigm. Public Health Reports, 117(S1), S104-S117.
38. SAMHSA. (2009). Culture Card: A guide to Build Cultural Awareness - American Indian and Alaska Native. DHHS publication no. 08-4354. http://store.samhsa.gov/product/American-Indian-and-Alaska- Native-Culture-Card/SMA08-4354
39. Barrera Jr, M., Castro, F. G., Strycker, L. A., & Toobert, D. J. (2013). Cultural adaptations of

behavioral health interventions: A progress report. Journal of consulting and clinical psychology, 81(2), 196.
40. Beals, J., Manson, S. M., Mitchell, C. M., Spicer, P., & AI-SuperPFP Team. (2003). Cultural specificity and comparison in psychiatric epidemiology: Walking the tightrope in American Indian research. Culture, Medicine and Psychiatry, 27(3), 259-289.
41. Garroutte, E. M., Beals, J., Keane, E. M., Kaufman, C., Spicer, P., Henderson, J., ... & Manson, S. M. (2009). Religiosity and spiritual engagement in two American Indian populations. Journal for the Scientific Study of Religion, 48(3), 480-500.
42. Gone, J. P., & Calf Looking, P. E. (2011). American Indian culture as substance abuse treatment: Pursuing evidence for a local intervention. Journal of psychoactive drugs, 43(4), 291-296.
43. Jumper-Reeves, L., Dustman, P. A., Harthun, M. L., Kulis, S., & Brown, E. F. (2013). American Indian cultures: How CBPR illuminated intertribal cultural elements fundamental to an adaptation effort. Prevention Science, 1-10.
44. Venner, L. V., Feldstein, W. S., Tafoya, N. (2008). Helping Clients Feel Welcome: Principles of Adapting Treatment Cross-Culturally. Alcohol Treatment Q., 25(4), 11-30.
45. Wexler, L. (2014). Looking across three generations of Alaska Natives to explore how culture fosters indigenous resilience. Transcultural psychiatry, 51(1), 73-92.
46. National Institute on Drug Abuse. 2016-2020 NIDA Strategic Plan: Advancing Addiction Science. Available online at https://www.drugabuse.gov/about-nida/2016-2020-nida-strategic-plan.
47. Thomas, L. R., Donovan, D. M., Sigo, R. L. W., Austin, L., Marlatt, G. A. & Tribe, T. S. (2009). The community pulling together: a tribal community-university partnership project to reduce substance abuse and promote good health in a reservation tribal community. Journal of Ethnicity in Substance Abuse, 8(3), 283–300.
48. Compton, W. M., Thomas, Y. F., Stinson, F. S., & Grant, B. F. (2007). Prevalence, correlates, disability, and comorbidity of DSM-IV drug abuse and dependence in the United States: Results from the national epidemiologic survey on alcohol and related conditions. Archives of General Psychiatry, 64(5), 566-576.
49. Hasin, D. S., Stinson, F. S., Ogburn, E., & Grant, B. F. (2007). Prevalence, correlates, disability, and comorbidity of DSM-IV alcohol abuse and dependence in the United States: Results from the national epidemiologic survey on alcohol and related conditions. Archives of General Psychiatry, 64(7), 830-842.
50. Substance Abuse and Mental Health Services Administration (SAMHSA). (2012). Results from the 2011 National Survey on Drug Use and Health: Summary of National Findings, NSDUH Series H-44, HHS Publication No. (SMA) 12-4713. Rockville, MD.
51. Pleis, J. R., Ward, B. W., Lucas, J. W. (2010). Summary health statistics for U.S. adults: National Health Interview Survey, 2009. National Center for Health Statistics. Vital Health Statistics, 10(249).
52. Indian Health Services. (2009). Highlights of Trends in Indian Health 2002-2003 Edition. U.S. Department of Health and Human Services. Rockville, MD.
53. Russo, D., Purohit, V., Foudin, L., & Salin, M. (2004). Workshop on alcohol use and health disparities 2002: A call to arms. Alcohol, 32(1), 37-43.
54. Advancing Indian Health Care: Hearing Before the Committee on Indian Affairs United States Senate, 111th Cong. 1 (2009). U. S. Government Printing Office, Washington, D.C.
55. Evans, E., Spear, S. E., Huang, Y., & Hser, Y. (2006). Outcomes of drug and alcohol treatment programs among American Indians in California. American Journal of Public Health, 96, 889-896.
56. Roubideaux, Y. (2005). Beyond red lake--the persistent crisis in American Indian health care. The New England Journal of Medicine, 353(18), 1881-1883.
57. Whitesell, N. R., Beals, J., Crow, C. B., Mitchell, C. M. & Novins, D. K. (2012). Epidemiology and etiology of substance use among American Indians and Alaska Natives: Risk, protection, and implications for prevention. The American Journal of Drug and Alcohol Abuse, 38(5), 376–382.
58. Urban Indian Health Commission. (2007). Invisible Tribes: Urban Indians and Their Health in a Changing World. The Robert Wood Johnson Foundation.
59. Zuckerman, S., Haley, J., Roubideaux, Y. & Lillie-Blanton, M. (2004). American Indians and Alaska Natives: Health Coverage and Access to Care. Menlo Park, Calif: Henry J. Kaiser Family Foundation.

60. National Urban Indian Family Coalition. Urban American Indian: The Status of American Indian and Alaska Native Children and Families Today. Accessed January 23, 2013 from: http://nc.casaforchildren.org/files/public/community/judges/July_2010/Urban20Indian20America.pdf
61. Kulis, S., Hodge D. R., Ayers, S. L., Brown, E. F., Marsiglis, F. F. (2012). Spirituality and religion: intertwined protective factors for substance use among urban American Indian youth. American Journal of Drug and Alcohol Abuse, 38(5), 444-449.
62. Institute of Medicine Committee on Crossing the Quality Chasm, Adaptation to Mental Health, & Addictive Disorders. (2006). Improving the quality of health care for mental and substance-use conditions. National Academy Press.
63. Miller, W. R., Yahne, C. E. & Tonigan, J. S. (2003). Motivational interviewing in drug abuse services: a randomized trial. Journal of Consulting and Clinical Psychology, 71(4), 754.
64. Peirce, J. M., Petry, N. M., Stitzer, M. L., Blaine, J., Kellogg, S., Satterfield, F., Schwartz, M., et al. (2006). Effects of lower-cost incentives on stimulant abstinence in methadone maintenance treatment: a National Drug Abuse Treatment Clinical Trials Network study. Archives of General Psychiatry, 63(2), 201.
65. Carroll, K. M., Easton, C. J., Nich, C., Hunkele, K. A., Neavins, T. M., Sinha, R., Ford, H. L., et al. (2006). The use of contingency management and motivational/skills-building therapy to treat young adults with marijuana dependence. Journal of Consulting and Clinical Psychology, 74(5), 955.
66. Carroll, K. M., Ball, S. A., Nich, C., Martino, S., Frankforter, T.L., Farentinos, C., et al. (2005). Motivational interviewing to improve treatment engagement and outcome in individuals seeking treatment for substance abuse: a multisite effectiveness study. Drug and Alcohol Dependence, 81(3), 301-12.
67. Roozen, H. G., Boulogne, J. J., van Tulder, M. W., van den Brink, W., De Jong, C. A. J. & Kerkhof, A. J. F. M. (2004). A systematic review of the effectiveness of the community reinforcement approach in alcohol, cocaine and opioid addiction. Drug and Alcohol Dependence, 74(1), 1-13.
68. Anton, R. F., O'Malley, S. S., Ciraulo, D. A., Cisler, R. A., Couper, D., Donovan, D. M., et al. (2006). Combined pharmacotherapies and behavioral interventions for alcohol dependence: the COMBINE study: a randomized controlled trial. JAMA: The Journal of the American Medical Association, 295(17), 2003– 2017.
69. Gone, J. & Looking, P. E. C. (2011). American Indian culture as substance abuse treatment: Pursuing evidence for a local intervention. Journal of Psychoactive Drugs, 43(4), 291-296.
70. Lucero, E. (2011). From tradition to evidence: Decolonization of the evidence-based practice system. Journal of Psychoactive Drugs, 43(4), 319–324.
71. Burlew, A. K., Weekes, J. C., Montgomery, L., Feaster, D. J., Robbins, M. S., Rosa, C. L., … Wu, L.-T. (2011). Conducting Research with Racial/Ethnic Minorities: Methodological Lessons from the NIDA Clinical Trials Network. The American Journal of Drug and Alcohol Abuse, 37(5), 324–332.
72. Novins, D. K., Fleming, C. M., Beals, J. & Manson, S. M. (2000). Commentary: quality of alcohol, drug, and mental health services for American Indian children and adolescents. American Journal of Medical Quality, 15(4), 148-156.
73. Manson, S. M. (2000). Mental health services for American Indians and Alaska Natives: need, use, and barriers to effective care. Canadian Journal of Psychiatry, 45(7), 617-626.
74. Walls, M. L., Johnson, K. D., Whitbeck, L. B. & Hoyt, D. R. (2006). Mental health and substance abuse services preferences among American Indian people of the northern Midwest. Community Mental Health Journal, 42(6), 521–535.
75. Gone, J. P., & Alcántara, C. (2007). Identifying effective mental health interventions for American Indians and Alaska Natives: A review of the literature. Cultural Diversity and Ethnic Minority Psychology, 13(4), 356.
76. Cruz, C. M., & Spence, J. (2005). Oregon Tribal evidence based and cultural best practices. Accessed 12/1/12 from: http://library.state.or.us/repository/2007/200710220927381/index.pdf
77. Daley, C. M., Filippi, M., James, A. S., Weir, M., Braiuca, S., Kaur, B., Greiner, K. A. (2012). American indian community leader and provider views of needs and barriers to mammography. Journal of Community Health, 37(2), 307-315.
78. Duvall, J., & Buchwald, D. (2012). Human papillomavirus vaccine policies among american indian tribes in washington state. Journal of Pediatric and Adolescent Gynecology, 25(2), 131-135.
79. Castor, M. L., Smyser, M. S., Taualii, M. M., Park, A. N., Lawson, S. A. & Forquera, R. A. (2006). A

nationwide population-based study identifying health disparities between American Indians/Alaska Natives and the general populations living in select urban counties. American Journal of Public Health, 96(8), 1478.
80. Dickerson, D. L. & Johnson, C. L. (2011). Design of a Behavioral Health Program for Urban American Indian/Alaska Native Youths: A Community Informed Approach. Journal of Psychoactive Drugs, 43(4), 337–342.
81. Savin, D., Garry, M. T., Zuccaro, P., & Novins, D. (2006).Telepsychiatry for treating rural American Indian youth.Journal of the American Academy of Child and Adolescent Psychiatry, 45(4), 484–488.
82. Cotton, M.-E., Nadeau, L., & Kirmayer, L. J. (2014).Consultation to Remote and Indigenous Communities. In L. J. Kirmayer, J. Guzder, & C. Rousseau (Eds.), Cultural Consultation (pp. 223–244). Springer: New York.
83. Carroll, K. M., Ball, S. A., Martino, S., Nich, C., Babuscio, T. A., Nuro, K. F., Gordon, M. A., et al. (2008). Computer-assisted delivery of cognitive-behavioral therapy for addiction: a randomized trial of CBT4CBT. The American Journal of Psychiatry,165(7), 881.
84. Olmstead, T. A., Ostrow, C. D. & Carroll, K. M. (2010). Cost-effectiveness of computer-assisted training in cognitive-behavioral therapy as an adjunct to standard care for addiction. Drug and Alcohol Dependence, 110(3), 200–207.
85. Lieberman, D. A., & Linn, M. C. (1991). Learning to learn revisited: Computers and the development of self-directed learning skills. Journal of Research on Computing in Education, 23, 373-395.
86. Des Jarlais, D. C., Paone, D., Milliken, J., Turner, C. F., Miller, H., Gribble, J., Shi, Q., Hagan, H., & Friedman, S. R. (1999). Audio-computer interviewing to measure HIV risk behaviour among injecting drug users: A quasi-randomised trial. The Lancet, 353, 1657-1661.
87. Bickel, W. K., & Marsch, L. A. (2007). A Future for Drug Abuse Prevention and Treatment in the 21st Century: Applications of Computer-Based Information Technologies. Chapter in J. Henningfield, PB. Santora, & Bickel, W. K. (Eds.) Addiction Treatment: Science and Policy for the 21st Century, 35-43.
88. Newman, M. G., Kenardy, J., Herman, S., & Taylor, C. B. (1996). The use of hand-held computers as an adjunct to cognitive-behavior therapy. Computers in Human Behavior, 12, 135-143.
89. Sugarman, D. E., Nich, C. & Carroll, K. M. (2010). Coping strategy use following computerized cognitive-behavioral therapy for substance use disorders. Psychology of Addictive Behaviors, 24(4), 689.
90. Kay-Lambkin, F. J., Baker, A. L., Kelly, B. J. & Lewin, T. J. (2012). It's worth a try: The treatment experiences of rural and urban participants in a randomized controlled trial of computerized psychological treatment for comorbid depression and alcohol/other drug use. Journal of Dual Diagnosis, 8(4), 262–276.
91. Griner, D., & Smith, T.B. (2006) Culturally adapted mental health interventions: a meta-analytic review. Psychotherapy Theory of Research and Practice, 43, 531–48.
92. Aguilera, S. & Plasencia, A. V. (2005). Culturally appropriate HIV/AIDS and substance abuse prevention programs for urban native youth. Journal of Psychoactive Drugs, 37(3), 299–304.
93. Hecht, M. L., Marsiglia, F. F., Elek, E., Wagstaff, D. A., Kulis, S., Dustman, P. & Miller-Day, M. (2003). Culturally grounded substance use prevention: an evaluation of the keepin'it REAL curriculum. Prevention Science, 4(4), 233–248.
94. Steiker, L. K. H. (2008). Making drug and alcohol prevention relevant: Adapting evidence-based curricula to unique adolescent cultures. Family & Community Health, 31(Suppl 1), S52.
95. Fok, C. C. T., Allen, J., Henry, D. & Mohatt, G. V. (2012). Multicultural Mastery Scale for Youth: Multidimensional assessment of culturally mediated coping strategies. Psychological Assessment, 24(2), 313.
96. Wadsworth, M. E., Rieckmann, T., Benson, M. A. & Compas, B. E. (2004). Coping and responses to stress in Navajo adolescents: Psychometric properties of the Responses to Stress Questionnaire. Journal of Community Psychology, 32(4), 391-411.
97. Rieckmann, T. R., Wadsworth, M. E. & Deyhle, D. (2004). Cultural identity, explanatory style, and depression in Navajo adolescents. Cultural Diversity and Ethnic Minority Psychology, 10(4), 365.
98. French, L.A. (2004). Alcohol and other drug addictions among native Americans: The movement toward tribal-centric treatment programs. Alcoholism Treatment Quarterly, 22(1), 81-91.
99. Morgan, R. & Freeman, L. (2009). The Healing of Our People: Substance Abuse 1 and

Historical Trauma. Substance Use & Misuse, 44(1), 84–98.
100. Taualii, M., Bush, N., Bowen, D. J. & Forquera, R. (2010). Adaptation of a smoking cessation and prevention website for urban American Indian/Alaska Native youth. Journal of Cancer Education, 25(1), 23–31.
101. O'Malley, S. S., Robin, R. W., Levenson, A. L., Grey Wolf, I., Chance, L. E., Hodgkinson, C. A., Romano, D., et al. (2008). Naltrexone Alone and With Sertraline for the Treatment of Alcohol Dependence in Alaska Natives and Non-Natives Residing in Rural Settings: A Randomized Controlled Trial. Alcoholism: Clinical and Experimental Research, 32(7), 1271–1283.
102. Foley, K., Pallas, D., Forcehimes, A., Houck, J., Bogenschutz, M., Keyser-Marcus, L. & Svikis, D. (2010). Effect of job skills training on employment and job seeking behaviors in an American Indian substance abuse treatment sample. Journal of Vocational Rehabilitation, 33(3), 181–192.
103. Carroll, K. M. & Rounsaville, B. J. (2010). Computer-assisted therapy in psychiatry: Be brave—it's a new world. Current Psychiatry Reports, 12(5), 426–432.
104. Israel, B. A., Schulz, A. J., Parker, E. A. & Becker, A. B. (1998). Review of community-based research: assessing partnership approaches to improve public health. Annual Review of Public Health, 19(1), 173–202.
105. Rieckmann, T., McCarty, D., Kovas, A., Spicer, P., Bray, J., Gilbert, S., Mercer, J. (2012). American Indians with substance use disorders: Treatment needs and comorbid conditions. American Journal of Drug and Alcohol Abuse, 38(5), 498-504.
106. Abbott, P. J., Moore, B. A., Weller, S. B. & Delaney, H. D. (1998). AIDS risk behavior in opioid dependent patients treated with community reinforcement approach and relationships with psychiatric disorders. Journal of addictive diseases, 17(4), 33-48.
107. Azrin, N., Sisson, R., Meyers, R. & Godley, M. (1982). Alcoholism treatment by disulfiram and community reinforcement therapy. Journal of Behavior Therapy and Experimental Psychiatry, 13(2), 105- 112.
108. Smith, J. E., Meyers, R. J. & Miller, W. R. (2010). The community reinforcement approach to the treatment of substance use disorders. The American Journal on Addictions, 10(S1), s51-s59.
109. Bickel, W. K., Amass, L., Higgins, S. T., Badger, G. J. & Esch, R. A. (1997). Effects of adding behavioral treatment to opioid detoxification with buprenorphine. Journal of Consulting and Clinical Psychology, 65(5), 803.
110. Garcia-Fernández, G., Secades-Villa, R., Garcia-Rodriguez, O., Sánchez-Hervás, E., Fernández-Hermida, J. R. & Higgins, S. T. (2011). Adding Voucher-Based Incentives to Community Reinforcement Approach Improves Outcomes during Treatment for Cocaine Dependence. The American Journal on Addictions, 20(5), 456–461.
111. Higgins, S. T., Budney, A. J., Bickel, W. K., Foerg, F.E., Donham, R., Badger, G. J. (1994). Incentives improve outcome in outpatient behavioral treatment of cocaine dependence. Archives of General Psychiatry, 51,568-576.
112. Higgins, S. T., Sigmon, S. C., Wong, C. J., Heil, S. H., Badger, G. J., Donham, R., et al. (2003). Community reinforcement therapy for cocaine-dependent outpatients. Archives of General Psychiatry, 60, 1043-1052.
113. Silverman, K., Higgins, S. T., Brooner, R. K., Montoya, I. D., Cone, E. J., Schuster, C. R. & Preston, K. L. (1996). Sustained cocaine abstinence in methadone maintenance patients through voucher-based reinforcement therapy. Archives of General Psychiatry, 53(5), 409.
114. Christensen, D. R., Landes, R. D., Jackson, L., Marsch, L. A., Mancino, M. J., Chopra, M. P., Bickel, W. K. (2014). Adding an internet-delivered treatment to an efficacious treatment package for opioid dependence. Journal of Consulting and Clinical Pscyhology, 82(6), 964-972.
115. Sue, S. (2003). In defense of cultural competency in psychotherapy and treatment. American Psychologist, 58(11), 964.
116. Lau, A. S. (2006). Making the case for selective and directed cultural adaptations of evidence-based treatments: Examples from parent training. Clinical Psychology: Science and Practice, 3, 295–310.
117. Campbell, C. I., Weisner, C. (2006). Adolescents entering chemical dependency treatment in private managed care: ethnic differences in treatment initiation and retention. Journal of Adolescent Health, 38(4), 343-350.
118. Guerrero, E. & Andrews, C. M. (2011). Cultural competence in outpatient substance abuse treatment: Measurement and relationship to wait time and retention. Drug and Alcohol Dependence,

119(1), 13-22.
119. Marsh, J. C., Cao, D., Guerrero, E., & Shin, H. (2009). Need-service matching in substance abuse treatment: Racial/ethnic differences. Evaluation and Program Planning, 32(1), 43-51.
120. Whitbeck, L. B., Adams, G. W., Hoyt, D. R. & Chen, X. (2004). Conceptualizing and measuring historical trauma among American Indian people. American Journal of Community Psychology, 33(3), 119– 130.
121. Kulis, S., Napoli, M., Marsiglia, F. F. (2001). Ethnic pride, biculturalism, and drug use norms of urban American Indian adolescents. Social Work Research, 26(2), 101-112.
122. Lupee, D., Venner, K. L., Greenfield, B., Homer, E., McGinley, V., Lesansee, F., Yamutewa, Y., Currier, R., May, P., Smith, J. E. (2012, June). Cross-cultural adaptations of CRA for substance use disorders. Poster presentation at the College of Problems on Drug Dependence in Palm Springs, California.
123. Venner, K. L. & Lupee, D. (2012). Positive pilot results of motivational interviewing and the community reinforcement approcah in a rural Southwest Native American tribe. Oral presentation at the Association for Behavioral and Cognitive Therapy. Washington D.C.
124. Wingood, G. M., & DiClemente, R. J. (2008). The ADAPT-ITT model: a novel method of adapting evidence-based HIV Interventions. Journal of Acquired Immune Deficiency Syndromes, 47(S1), S40–6.
125. Bernal, G., Bonilla, J., & Bellido, C. (1995). Ecological validity and cultural sensitivity for outcome research: Issues for cultural adaptation and development of psychosocial treatments with Hispanics. Journal of Abnormal Child Psychology, 23, 67–82.
126. Bernal, G., Jimenez-Chafey, M. I. & Rodriguez, M. M. D. (2009). Cultural adaptation of treatments: A resource for considering cultural in evidence-based practice. Professional Psychology: Research and Practice, 40(4), 361-368.
127. Green, L.W. & Mercer, S. L. (2001). Can Public Health Agencies and Researchers Reconcile the Push from Funding Bodies and the Pull from Communities? American Journal of Public Health 91(12), 1926- 1929.
128. Israel, B.A., Schulz, A.J., Parker, E.A., Becker, A.B. (1998). Review of community-based research: assessing partnership approaches to improve public health. Annual Review of Public Health, 19, 173-202.
129. Minkler, M., Blackwell, A.G., Thompson, M., Tamir, H. (2003). Community-based Participatory Research: Implications for Public Health Funding. American Journal of Public Health, 93(8), 1210–1213.
130. Rounsaville, B. J., Carroll, K. M., Onken, L. S. (2001). A Stage Model of behavioral therapies research: Getting started and moving on from Stage I. Clinical Psychology: Science and Practice, 8(2), 133- 142.
131. Nunes, E. V., Ball, S., Booth, R., Brigham, G., Calsyn, D. A., Carroll, K., Feaster, D. J., et al. (2010). Multi-site effectiveness trials of treatments for substance abuse and co-occurring problems: Have we chosen the best designs? Journal of substance abuse treatment, 38(S1), S97.
132. Bisaga, A., Aharonovich, E., Garawi, F., Levin, F.R., Rubin, E., Raby, W.N., et al. (2005). Utility of lead-in period in cocaine dependence pharmacotherapy trials. Drug Alcohol Dependence,77(1), 7-11.
133. Kampman, K. M., Volpicelli, J.R., Mulvaney, F., Rukstalis, M., Alterman, A.I., Pettinati, H., et al. (2002). Cocaine withdrawal severity and urine toxicology results from treatment entry predict outcome in medication trials for cocaine dependence. Addictive Behavior, 27(2),251-260.
134. Nunes, E. V., Pavlicova, M., Hu, M., Campbell, A., Miele, G., Hien, D., & Klein, D. F.(2011). Baseline matters: The importance of covariation for baseline severity in the analysis of clinical trials. American Journal of Drug and Alcohol Abuse, 37(5), 446-452.
135. Sobell, L. C. & Sobell, M. B. (1992). Timeline follow-back: a technique for assessing self-reported alcohol consumption. In J. Allen & R. Z. Litten (Eds.), Measuring Alcohol Consumption: Psychosocial and Biological Methods (pp.41-72). Totowa, NJ: Humana Press.
136. Sobell, M. B. & Sobell, L. C. (2000). An excellent springboard. Addiction, 95(11), 1712-1715.
137. Litt, M. D., Kadden, R. M., Cooney, N. L. & Kabela, E. (2003). Coping skills and treatment outcomes in cognitive-behavioral and interactional group therapy for alcoholism. Journal of Consulting and Clinical Psychology, 71(1), 118.
138. Prochaska, J. O., Velicer, W. F., DiClemente, C. C., Fava J. (1988). Measuring processes of

change: applications to the cessation of smoking. Journal of Consulting Clinical Psychology, 56(4), 520-528.
139. The WHOQOL Group. (1995). The World Health Organization quality of life assessment (WHOQOL): Position paper from the World Health Organization. Social Science and Medicine, 41(10); 1403-1409.
140. Ward J, Darke S, & Hall W. (1990). The HIV Risk-taking Behavior Scale Manual. National Drug and Alcohol Research Centre, Technical Report Number 10.
141. Zimmerman, MA, Ramirez-Valles J, Washienko KM, & Walte B, Dyer, S. (1996). The Development of a Measure of Enculturation for Native American Youth. American Journal of Community Psychology, 24(2), 295-310.
142. Winderowd, C., Montgomery, D., Stumblingbear, G., Harless, D. & Hicks, K. (2008). Development of the American Indian Enculturation Scale to assist counseling practice. American Indian and Alaska Native Mental Health Research, 15(2), 1–14.
143. Dillard, D., & Spero, M. (2013).Assessing and Treating American Indians and Alasks Native People.Academic Press.
144. Harper, F. G. (2011). With All My Relations: Counseling American Indians and Alaska Natives Within a Familial Context. The Family Journal, 1066480711419818.doi:10.1177/1066480711419818
145. Stumblingbear-Riddle, G., & Romans, J. S. C. (2012). Resilience among Urban American Indian Adolescents: Exploration into the Role of Culture, Self-Esteem, Subjective Well-Being, and Social Support. American Indian and Alaska Native Mental Health Research: The Journal of the National Center, 19(2), 1– 19.
146. Phinney, J. S. (1992). The multigroup ethnic identity measure a new scale for use with diverse groups. Journal of Adolescent Research, 7(2), 156–176.
147. Lee, R. M. & Robbins, S. B. (1995). Measuring belongingness: The Social Connectedness and the Social Assurance scales. Journal of Counseling Psychology, 42(2), 232.
148. Lee, R. M. & Robbins, S. B. (1998). The relationship between social connectedness and anxiety, self- esteem, and social identity. Journal of Counseling Psychology, 45, 338–345.
149. McLellan, A. T., Alterman, A. I., Cacciola, J., Metzger, D., et al. (1992). A new measure of substance abuse treatment: Initial studies of the Treatment Services Review. Journal of Nervous and Mental Disease, 180(2), 101-110.
150. Wallihan, D. B., Stump, T. E. & Callahan, C. M. (1999). Accuracy of self-reported health services use and patterns of care among urban older adults. Medical Care, 37(7), 662.
151. Roberts, R. O., Bergstralh, E. J., Schmidt, L. & Jacobsen, S. J. (1996). Comparison of self-reported and medical record health care utilization measures. Journal of Clinical Epidemiology, 49(9), 989–995.
152. Jay, G. M., Belli, R. F., Lepkowski, J. M. & others. (1994). Quality of last doctor visit reports: A comparison of medical record and survey data. American Statistical Association 1994 proceedings of the Section on Survey Research Methods, 1, 362–367.
153. Harlow, S. D. & Linet, M. S. (1989). Agreement between questionnaire data and medical records: the evidence for accuracy of recall. American Journal of Epidemiology, 129(2), 233–248.
154. Hudziak, J. J., Helzer, J. E., Wetzel, M. W., Kessel, K. B., McGee, B., Janca, A. & Przybeck, T. (1993). The use of the DSM-III-R Checklist for initial diagnostic assessments. Comprehensive Psychiatry, 34(6), 375–383.
155. Spitzer, R. L., Kroenke, K., Williams, J. B. W. (1999). Validation and Utility of a Self-report Version of PRIME-MD: The PHQ Primary Care Study. JAMA, 282(18):1737-44.
156. Parker, T., May, P.A., Maviglia, M.A., Petrakis, S., Sunde, S., Gloyde,, S.V. (1997). PRIME-MD: Its utility in detecting mental disorders in American Indians. International Journal of Psychiatry Medicine, 27(2), 107-128.
157. Weathers, F.W., Litz, B.T., Keane, T.M., Palmieri, P.A., Marx, B.P., & Schnurr, P.P. (2013). The PTSD Checklist for DSM-5 (PCL-5). Scale available from the National Center for PTSD at www.ptsd.va.gov.
158. Kessler, R.C., Barker, P.R., Colpe, L.J., Epstein, J.F., Gfroerer, J.C., Hiripi, E., Howes, M.J, Normand, S-L.T., Manderscheid, R.W., Walters, E.E., Zaslavsky, A.M. (2003). Screening for serious mental illness in the general population. Archives of General Psychiatry, 60(2), 184-189.
159. Petry, N. M., Alessi, S. M., Marx, J., Austin, M. & Tardif, M. (2005). Vouchers versus prizes: contingency management treatment of substance abusers in community settings. Journal of Consulting and Clinical Psychology, 73(6), 1005.
160. Petry, N. M., Martin, B., Cooney, J. L. & Kranzler, H. R. (2000). Give them prizes and they will come:

Contingency management for treatment of alcohol dependence. Journal of Consulting and Clinical Psychology, 68(2), 250.
161. Petry, N. M., Tedford, J., Austin, M., Nich, C., Carroll, K. M. & Rounsaville, B. J. (2004). Prize reinforcement contingency management for treating cocaine users: how low can we go, and with whom? Addiction, 99(3), 349–360.
162. Sindelar, J., Elbel, B. & Petry, N. M. (2007). What do we get for our money? Cost-effectiveness of adding contingency management. Addiction, 102(2), 309–316.
163. Kellogg, S. H., Burns, M., Coleman, P., Stitzer, M., Wale, J. B., Kreek, J. & others. (2005). Something of value: the introduction of contingency management interventions into the New York City Health and Hospital Addiction Treatment Service. Journal of Substance Abuse Treatment, 28(1), 57–65.
164. Heatherton, T. F., Kozlowski, L. T., Frecker, R. C., & Fagerstrom, K. O. (1991). The Fagerstrom Test for Nicotine Dependence: a revision of the Fagerstrom Tolerance Questionnaire. British Journal of Addiction, 86(9), 1119-1127.
165. Kim, S. J., Scherer, E. A., Metcalf, S. A., Greene, M. A., Wu, J., Gonzalez, O., Mazza, G., MacKinnon, D. P., & Marsch, L. A. (In preparation). Can we measure momentary changes in self-regulation?: The development and validation of a novel momentary self-regulation scale.