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The Effectiveness of Text Coaching on Substance Use Treatment Outcomes in Adolescence

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Dedication

I dedicate this manuscript to my family, Mom, Ron, and Lydia, who have been the exemplification of unconditional love and support throughout my life, and particularly through my journey as a graduate student. To my late father, who inspired in me the deep reverence and dedication to education and service. My research team and colleagues, whom I hold in ardent regard for your commitment to research and serving others. To the young participants of Project READY, who make the pursuit of this work fulfilling and worthwhile. And my mentors, Peter Vik, without whom I may have never gone to graduate school, and most importantly, David Stewart, who has encouraged and challenged my growth with the most comedic, warm spirit. My sincerest gratitude to you all.

Acknowledgment

I would like to extend a special thanks to the Project READY interventionists, the Stewart RVT, for their enthusiasm and patience with this study. It was conducted with a graceful willingness and positive attitude, which, had that not been the case, this project would have never been completed. And a special thanks to Dave. Your mentorship has made an incredible impact on my life and my mind as a scientist, a psychologist, and a citizen. Because of you, I will always do my best to “save the children”.

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Abstract

The purpose of this study was to investigate the utility of text coaching on reducing substance use in adolescents participating in a school-based manualized intervention that utilizes Motivational Interviewing (MI) and motivational enhancement principles. A further aim of this study was to examine how perceived treatment satisfaction and self-efficacy mediate this relationship. Participants included 76 adolescents (62% male, 65% ethnic minority), ages 14-19 (M = 16), referred for substance use assessment and intervention by school administrators at large suburban public high schools. It was hypothesized that individuals who received the addition of text coaching would evidence a greater reduction in substance use compared to individuals who did not receive text coaching by the end of treatment and at post-treatment follow-up. Data was collected via an online survey tool. Substance use was measured using the Customary Drinking and Drug Use Record (Brown, et al., 1998). Treatment satisfaction was measured using the What I Got from Treatment scale (Miller & Brown, 1994). Self-efficacy was measured using the Situational Confidence Questionnaire (Annis & Graham, 1988). Multiple regression analyses were conducted for alcohol use and marijuana use separately. Text coaching predicted greater reduction in alcohol use at end of treatment (R^2 = .11, F = 4.08 [2, 67], p < .05), but not marijuana use (R^2 = .04, F = 1.49 [2, 67], p = .233). Text coaching as a predictor of greater reduction in alcohol use at post-treatment follow-up was trending towards significance (R^2 = .06, F = 2.70 [2, 48], p = .078); however, not for marijuana use (R^2 = .05, F = 1.11 [2, 46], p = .337). Additionally, PROCESS Macro for SPSS 22 (Hayes, 2013) was used to determine the mediating effects of treatment satisfaction and self-efficacy. This mediation analysis failed to reach significance on any pathway. These results indicated text coaching was an effective

adjunct intervention in decreasing alcohol use in high-risk substance using adolescence. This study provides a rationale for designing substance use interventions for adolescents with a text coaching component as a means of enhancing the gains made from treatment.

CHAPTER I

Introduction and Review of Literature

Purpose

Adolescents engage in frequent and heavy substance use despite the associated risks and negative consequences that often follow. Reports estimate that 75% of high school students have used addictive substances including cigarettes, marijuana, alcohol and cocaine; and of those, 46% report current use of illicit substances. Substance use in adolescents poses a significant risk factor for developing a substance use disorder (SUD) later in adulthood with 90% of American adults who meet criteria for substance use disorders having used substances before age 18 (National Center for Addiction and Substance Abuse at Columbia University [NCASACU], 2011). Thus, early intervention is critical.

Substance use in adolescence continues to present a unique challenge to treatment. During this period, adolescents' increased need for autonomy and individuation often incentivize a social shift from parental influence to peer influence which plays an important role in explaining their risky substance use behavior during adolescence (Gardner & Steinberg, 2005). This transition presents a challenge to preventing substance-related problems due to decreased monitoring of behaviors from parents and other adults. Adolescents undergo rapid developmental and social changes that increase the likelihood of initiation and experimentation of substances, yet the effectiveness of interventions designed to target substance use behavior change reveal small effect sizes (Jensen et al., 2011). Motivational Interviewing (MI) is considered to be an efficacious treatment approach for adolescent substance misuse. Although the use of MI has been shown to significantly reduce substance use outcomes, findings are mixed in terms of the size and the persistence of the treatment effect (Miller & Rose, 2009), thus using

this intervention in conjunction with other therapeutic tools could enhance the therapeutic style of MI and improve the effectiveness of treatment.

The purpose of this study was to investigate the utility of text coaching on reducing substance use in adolescents participating in a school-based intervention that utilizes Motivational Interviewing (MI) principles. A further aim of this study was to examine how perceived treatment satisfaction and self-efficacy mediate this relationship. This study highlighted text coaching as a viable therapeutic supplement for adolescent substance use treatment. Additionally, investigating the mechanisms through which text coaching activates change in substance use informs the design and implementation of text coaching interventions.

Given the effectiveness of MI in reducing substance use among adolescents, using technology to further extend its duration and therapeutic reach may increase the potency of treatment. Additionally, these methods may inform the ecological validity of MI by applying the treatment in the real-world setting of the client. The use of text coaching is a recent trend in the enhancement of the delivery of evidence-based treatments for mental health problems (Boyer, Smelson, Fletcher, Ziedonis, & Picard, 2010). The implementation of adjunct therapeutic tools is necessary in order to create more effectual treatment and mitigate the negative impact of risk factors that often interfere with treatment adherence and reductions in substance use. Further, designing interventions that target the unique dynamics of adolescent substance use is critical. The effectiveness of text coaching on substance use outcomes in an adolescent high-risk substance using population has not been widely studied. To support the aims of this study, I reviewed extant research on social cognitive learning theory, motivational interviewing, and the importance of the therapeutic relationship to support the examination of text coaching as an

efficacious adjunct that can enhance the utility of a MI intervention while investigating potential mechanisms of substance use change.

Social Cognitive Learning Theory, Self-efficacy, and Substance Use

Bandura's Social Cognitive Learning Theory (1989) has long been a fundamental theory which helps explain the developmental changes undergone throughout the lifespan, as well as human motivation and human behavior. Bidirectional relationships between behavior, cognition, personal factors, and the environment act together in a reciprocal fashion to predict outcomes. Expectations, beliefs, self-perceptions, goals, and intentions all modify behavior. Additionally, personal factors such as temperament, emotional tendencies, and cognitive styles are enacted and evoke particular socioenvironmental responses, further shaping an individual's behavior as well as those predeterminant factors. Behavior then continues to alter the environment in such a way that they become byproducts of one another. According to Bandura's social cognitive theory, a person's cognitions or beliefs related to a behavior in concert with the socioenvironmental conditions that the individual comes in contact with predict the motivation, self-regulatory strategies enacted, and eventual action taken related to the behavior of interest (Bandura, 1989). In the case of substance misuse, this theory helps capture the many etiological pathways of this pattern of behavior. Any combination of determinants can be mapped out using the reciprocal model of this theory to explain substance-related behaviors. Take, for example, an adolescent with a family history of substance abuse. Early exposure to substance use behavior modeled by parents, environmental factors such as little parental monitoring, social determinants like peer using friends, cognitions including positive expectations of the substance, and emotional tendencies like impulsivity in the face of negative emotions may all play a role in predicting this individual's eventual substance misuse. As the adolescent continues to use substances,

characteristics related to using the drug are further shaped thus increasing the severity of use over time. Bandura's theory successfully captures the progression of substance misuse through multiple personal and contextual inputs. Additionally, social cognitive theory highlights some of the necessary components of behavior change.

Specific to this theory, perceived self-efficacy is said to be the driving force of human action (Bandura, 1999), and conceptualized efficacy expectancy as the belief that one can successfully execute behaviors needed to produce a desired outcome (Bandura, 1977). In this way, efficacy beliefs are said to influence motivation, goal-setting, initiation of change, expended effort towards goal-pursuits, and sustaining of coping behavior when difficulties arise (Bandura and Locke, 2003). Bandura (1986) indicated a number of studies in which perceived self-efficacy predicted future behavior better than past performance.

In light of those findings, self-efficacy is particularly useful in conceptualizing the course of substance use disorders. Many studies have shown that self-efficacy is a predictor of treatment outcome in substance use treatment. Abstinence self-efficacy, that is, a person's belief that they can resist using substances in familiar substance-taking situations, is a strong predictor of post-treatment abstinence (Ilgen et al., 2005; Warren, Stein, & Grella, 2007). In the case of adolescent substance use, increased self-efficacy has been shown to predict abstinence following substance use treatment (Burleson & Kaminer, 2005). Self-efficacy has been found to predict quantity and frequency of alcohol and drugs consumed up to twelve months (Sitharthan & Kavanagh, 1990; Sitharthan and Sayer, 1996; and Maisto, Connors, & Zywiak, 2000). It has been found to be related to a number of substance use outcome variables including time to relapse post treatment (Allsop, Saunders, & Phillips, 2000); reductions in frequency of binge drinking (Blume, Schmaling, & Marlatt, 2003). Among adolescents, coping self-efficacy has

been found to be a protective factor from relapse with both substance use and psychiatric disorders (Ramo, Anderson, Tate, & Brown, 2005).

Interestingly, self-efficacy is a construct that can be influenced heavily by other factors. For example, Ilgen, Tiet, Finney, & Moos (2006) found that the quality of the therapeutic relationship interacted with baseline self-efficacy to predict outcome such that individuals with low self-efficacy whom reported a strong therapeutic alliance had alcohol use outcomes similar to those clients who had high self-efficacy (as cited in Kallen & Litt, 2011).

There are a number of studies that have explored self-efficacy as a mediator in substance use treatment with outcomes being mixed (Kallen & Litt, 2011) with most studies finding evidence for it as a partial mediator. Though being such an important construct in behavior change, it is difficult to determine what increases self-efficacy in substance use treatment. It seems likely that a strong therapeutic alliance may increase self-efficacy but very little research exists that adequately characterizes what increases self-efficacy. Moreover, because self-efficacy has such a strong influence in the course of substance use behaviors, interventions designed to reinforce this mechanism are warranted.

Motivational Interviewing

This study was embedded in a substance use intervention that utilizes MI, which is a structured therapeutic style. Although it is not formally derived from preexisting theories, MI includes active treatment components consistent with the theoretical underpinnings of Social Cognitive Learning Theory, particularly those that support self-efficacy in the client (Chou, Ditchman, Pruett, Chan, & Hunter, 2009). MI is defined as a "collaborative conversation style for strengthening a person's own motivation and commitment to change" (Miller & Rollnick, 2014, p. 12) and has well-documented effectiveness in treating substance use disorders (Burke,

Arkowitz, & Menchola, 2003; Hettema, Steele, & Miller, 2005; Jensen et al., 2011). The basic principles of MI include: (a) develop discrepancy, (b) express empathy, (c) amplify ambivalence, (d) roll with resistance, and (e) support self-efficacy (Miller & Rollnick, 2002). A principle goal of MI is for the therapist to enhance clients' intrinsic motivation to change substance use behaviors by acknowledging their ambivalence or resistance to change (sustain talk) while evoking their reasons for change (change talk). Therapists help elicit clients' desires, reasons, and beliefs regarding change by collaboratively partnering with them, conveying acceptance and compassion through empathic responding and support for autonomy, and affirming clients' personal strengths and steps taken towards changing.

One complementary theoretical model to MI is the Transtheoretical Model (TTM) of change first proposed by Prochaska and DiClemente (1984). This model states that change occurs along a continuum or pathway and identifies five stages of change: Precontemplation, Contemplation, Determination/Preparation, Action, and Maintenance. In the Precontemplation stage, the individual has no intention of taking action in the near future, usually measured as the next six months. It is common for these clients to appear unmotivated, resistant, and lacking insight into the consequences of their behavior (Prochaska, Redding, & Evers, 2008, p. 100). In the Contemplation stage, clients express their interest in changing in the near future. Because they are more aware of the pros and cons of their behavior, they present as highly ambivalent but hesitant to take action. During the Preparation stage of change, clients intend to take action typically within the next month. At this point, they have often made steps towards changing in the past year and have made preparations in their immediate environment to support their next step into action. Once in the Action stage, clients have taken observable action towards abstinence or a significant reduction in use. Outcomes vary in this stage in that some clients take

action but do not continue to do so while others create long-term change through continual behavior modifications. After roughly six months of successful behavior modifications, clients are said to be in the Maintenance stage where they presumably have less temptation to use and notice increased confidence to abstain from using. Although this model may seem like a forward moving process, it is well understood that substance use behavior change is fickle and subject to regressions. This model takes into account that motivation to change, and thus, motivation for engaging in treatment is not stable or linear.

Most therapists would agree that motivation is a necessary component for change in substance use treatment; however, it is common for individuals to present to treatment with unclear motivation to change perhaps because they were required by law or strongly urged by family as a result of substance use consequences. A fluid model of change, like the TTM, is particularly relevant to substance abuse treatment among adolescents because of this pattern of referral (Muck et al., 2001). Adolescents may present to treatment with strong reluctance to change given they are often referred by a parent, juvenile justice system official, or school official and very well may be in the Precontemplation stage of change. Thus, meeting adolescent clients where they are at in their stage of change then becomes increasingly important as a means of fostering a therapeutic alliance and for moving them out of stages of ambivalence towards action. The language of MI was designed with this conceptual model in mind and has provided therapists with a dialect for appropriately responding to clients depending on where they are in their stage of change. One indication that a client is moving into the Action stage of change is if they utilize active coping strategies in substance using situations in order to reduce or abstain from using. Text coaching is a possible means of activating stages of change by encouraging the client to utilize strategies in the moment when presented with substance-related stimuli.

The current study utilized Motivational Enhancement Therapy (MET) techniques, which engender the active ingredients of both MI and TTM by enacting a conversational MI style while employing tools that highlight an individual's reasons and readiness to change. The addition of text coaching specifically enhanced each therapeutic activity involved in the intervention. A specific tool used in the current study developed from these models was the decisional balance. Decisional balance has been shown to motivate change in substance use behavior as an intervention (Apodaca & Longabaugh, 2009; Guo, Aveyard, Fielding, & Sutton, 2009), and is also used to assess motivation to change and predict future behavior (Collins, Cary, & Otto, 2009; Velicer, DiClemente, Prochaska, & Brandenburg, 1985). During this exercise, clients were asked to list and discuss the advantages and disadvantages of their current substance use behavior, as well as the possible advantages and disadvantages of changing their substance use behavior. Following this, clients were asked to rate the importance of each consequence. This exercise directly applied to the treatment goal of developing discrepancy, as clients were able to objectively see the perceived benefits and drawbacks of their behavior. The active observation fosters a discussion of the relationship between the client's behaviors and their goals, thereby increasing their motivation to change, and by extension, discussion of decreasing their substance use (LaBrie, Pedersen, Earlywine, & Olsen, 2006).

Another MI technique used to mobilize change talk that was implemented in the current study was the importance, or *readiness ruler* (Miller & Rollnick, 2014, p. 174). This interviewing technique is intended to elicit reasons the client has for change regardless of where they are at in their readiness to change. By raising their own arguments for change, they are mobilized in the direction of behavior change. In this exercise, clients were asked, "On a scale from 0 to 10, how important would you say it is for you to change?" This was followed up by

asking "And why are you at a [their rating] and not 0 [or a lower number]?" In order to gauge a client's self-efficacy or belief that they could make a change, they were asked, "On a scale from 0 to 10, how confident are you that you could make this change?" This was followed up by asking "And why are you at a [their rating] versus a [some higher rating]. The goal of this inquisition is to highlight possible barriers to change and explore what factors support their self-efficacy. Moreover, this dialogue engages the client's self-efficacy by discussing ways that they could build their confidence. Given the evidence that change talk predicts greater reductions in substance use outcomes (Bear et al. 2008), further utilization of tools that aim to explore and resolve the ambivalence among clients by increasing their reasons for change in addition to their self-efficacy for changing is relevant and needed.

The Therapeutic Relationship and Substance Use

Both Social Cognitive Learning Theory and Motivational Interviewing capture integral components necessary for behavioral change. A notable parallel between these two theoretical/therapeutic models is the emphasis on empowering clients and supporting their self-efficacy through a collaborative approach. The therapeutic relationship affords an opportunity for clients to experience prosocial bonding and support, structure and monitoring, and goal direction. It is possible that increased bonding between client and therapist by way of more frequent treatment-adherent outreach, such as text coaching, may act as an extension of the therapeutic relationship by supporting goal pursuits and coping self-efficacy.

Although the utilization of evidence-based treatment is preferred, common therapeutic factors like empathy, warmth, and the therapeutic relationship have long been considered the primary driving forces of effective therapy (Lambert & Barley, 2001). Empirical research suggests that non-specific factors related to the therapeutic relationship account for 30% of the

variance in therapeutic effect (Lambert, 1986), and that the therapeutic alliance between clinician and client is a major commonality across psychotherapies (Grencavage & Norcross, 1990). It has been established that in addition to enacting specific therapeutic components, establishing a therapeutic alliance with a client is prioritized given that it accounts for a significant part of the variance in explaining the mechanisms to which behavioral change is obtained. Interestingly, the level to which the therapeutic alliance predicts substance use outcomes is not as clear-cut. Barber and colleagues (2001) examined how patient-rated therapeutic alliance predicted retention and outcome in a large sample of cocaine users randomly assigned to a supportive-expressive therapy (SE), cognitive therapy (CT), and individual drug counseling (IDC). Therapeutic alliance significantly predicted retention, yet failed to predict outcomes. Although alliance did not predict outcome, patients reported a significant increase in alliance from Session 2 to Session 5 in all treatment groups. This finding supports the rationale for implementing better strategies during this sensitive phase in treatment in order to deliver a more powerful intervention.

Another reason for increasing the potency of brief interventions is the limited exposure that the client has to the clinician. Less time with the clinicians means limited direct involvement with the therapeutic material and less time for the clinician to form a therapeutic alliance with the client. Additionally, a number of extrinsic social determinants may affect a client's behaviors from the time that a session concludes to when a clinician and client reconvene. A strong therapeutic alliance can protect against these often naturally occurring, yet therapeutically imposing, forces (Street, Makoul, Arora, & Epstein, 2009); and is enhanced when clients receive consistent messages and coordinated care from their providers (Epstein & Street, 2007). Extending the reach of the therapeutic alliance also affords an opportunity for clients to perceive treatment as more effective and supportive.

Although social support typically is treated as a resource external to clinical settings, increases in clinician–client communication can contribute to the supportive nature of the therapeutic alliance. Providing social support by offering encouragement with clients' goal pursuits and affirmations for actions they took towards their goals may counter the effects of 'negative' social support to some degree (e.g. peer pressure to engage in substance-related risky behaviors; Rice et al., 1996). Research to date has not examined how extension of the therapeutic relationship consistent with MI techniques via text coaching impacts protective mechanisms like perceived treatment satisfaction and self-efficacy that act on substance use.

Treatment Satisfaction and Substance Use Outcomes

Existing research suggests that the therapist is one of the most important factors in effective substance use treatment (Najavits & Weiss, 1994). Previous studies have attempted to study treatment effectiveness using adherence ratings, or how well therapists adhered to the tenets of a manual-based treatment protocol, in addition to client outcomes and attrition rates.

Treatment effectiveness and treatment satisfaction are likely overlapping constructs. In the literature, treatment satisfaction is defined as “the extent to which services gratify the client’s wants, wishes, or desires for treatment” (Lebow, 1983, p. 212). Few studies have been conducted that examine the relationship between treatment satisfaction and post treatment substance use outcomes among adolescents and those who have, found equivocal results. A longitudinal study examining the relationships among the working alliance, treatment satisfaction, and post treatment use among adolescents in substance use treatment found that working alliance, but not treatment satisfaction, predicted use at 3- and 6-month follow-up (Tetzlaff et al., 2005). Although treatment satisfaction did not predict outcomes, it should be noted that it positively correlated with working alliance. Another investigation found that

positive perception of working alliance predicted greater client satisfaction and subsequent positive drinking-related outcomes (Dearing, Barrick, Dermen, & Walitzer, 2005). Knowing the challenging nature of therapy, even effective therapies, it may be more useful to consider effectiveness from the perspective of what clients think they received from treatment. In a survey of 15 publicly funded treatment agencies investigating correlates of satisfaction with substance abuse treatment, phone availability, counselor skill, and sensitivity were associated with greater levels of satisfaction (Rohrer & Hilsenrath, 1999). In therapeutic work with adolescents, the therapist not only serves as an agent of change in problem behavior but, and perhaps particular in a school-based intervention, therapists also serve as an adult in the adolescent's social support network (Bronfenbrenner, 1979).

In light of the findings discussed thus far, it is clear that the broadly common fundamental factors of psychotherapy (i.e., therapeutic relationship) and the active ingredients of MI (i.e., supportive, nonjudgmental, and collaborative relationship) deserve similar attention when developing interventions. That being said, it is plausible that enhancing evidence-based treatments with tools containing both qualities, like text coaching, are a favorable adjunct.

Text Coaching

With the exponential rise in computer and mobile technologies in the past two decades and consequent trends in their use in various of aspects daily living, more recent One way to enhance the supportive role that clinicians play in substance use treatment is through continued care via text coaching. Not only would this tool extend the reach of behavioral therapies beyond traditional face-to-face interventions, but could also potentially improve treatment compliance (Boyer et al., 2010). Additionally, using text coaching as an evidence-based therapeutic tool

could greatly increase accessibility, utilization, and cost-effectiveness of substance use interventions.

With the notable increase in mobile text usage in the last decade and the marginal effectiveness of many substance use treatments for adolescents (Jensen et al., 2011), the provision of more comprehensive interventions through mobile technologies could improve treatment accessibility and subsequent symptom management where face-to-face treatment is often unavailable. Though seen most often in primary health care settings targeting health-related behaviors, mobile health technology integration addiction treatment has shown promise in these settings as a way to help maintain treatment attendance, support patients' recovery, and monitor patients' progress (Quanbeck et al., 2014).

The utilization of text coaching technology is fairly new to the mental health field, particularly regarding substance use treatment, but is gaining popularity as a viable inclusion in evidence-based treatments. A systematic review of smartphone applications (Donker et al., 2013) used for the treatment of mental health problems indicated that apps targeting depression, anxiety, and substance use evidenced significant reductions. Similarly, a review of text-message interventions targeting medication adherence, treatment retention, and improvement in healthy behaviors related to weight management, diabetes control, and smoking cessation (Riley et al., 2008), and more severe mental health problems, like bulimia nervosa and schizophrenia, demonstrated early efficacy across studies (Wei, Hollin, & Kachnowski, 2011).

Smartphone technology is particularly promising in the field of substance use treatment. Researchers have examined the utility of smartphone applications in reducing risky alcohol use among university students with components like substance use feedback and planning ahead for reducing use (Gajecki, Berman, Sinadinovic, Rosendahl, & Anderson, 2014), though findings

were mixed. In another randomized clinical trial, patients leaving a residential treatment who were given a smartphone with an application designed to support treatment gains reported significantly fewer drinking days than controls (Gustafson, McTavish, & Chih, 2014). Phone coaching in Dialectical Behavior Therapy (DBT) has been shown to reduce urges to use substances (Rizvi, Dimeff, Skutch, Carroll, and Linehan; 2011). Additionally, those who failed to meet treatment goals in the first phase of Intensive Outpatient Program (IOP) treatment evidenced greater substance use reductions after receiving telephone-based continued care (McKay et al., 2005). One study targeting smoking cessation in a college population developed a Web-based and text messaging program based on theories from the transtheoretical stages of change model, a core component of MI as previously discussed in this paper (Riley et al., 2008). Participants were sent 1 to 3 text messages per day and texts were tailored to the stage of change of the user. Reminders related to their quitting goals, tips on coping strategies, and encouragement and affirmations were provided via text. Results indicated that participants significantly reduced their number of cigarettes per day. Altogether, these studies provide strong evidence for the use smartphone-based interventions in substance use treatment; however, limited studies have investigated the effectiveness of smartphone interventions designed from the theoretical underpinnings of MI while targeting an adolescent substance using population.

Current Study

The purpose of the current study is to determine the effectiveness of MI-based text coaching designed to deliver MI specific components on substance use outcomes and through possible mediators including perceive treatment satisfaction and self-efficacy. Figure 1 represents the conceptual model of the proposed comparison study. In order to distinguish the

additive effect of text coaching, outcomes were compared to the last 2 previous years of Project READY, when clients did not receive text coaching.

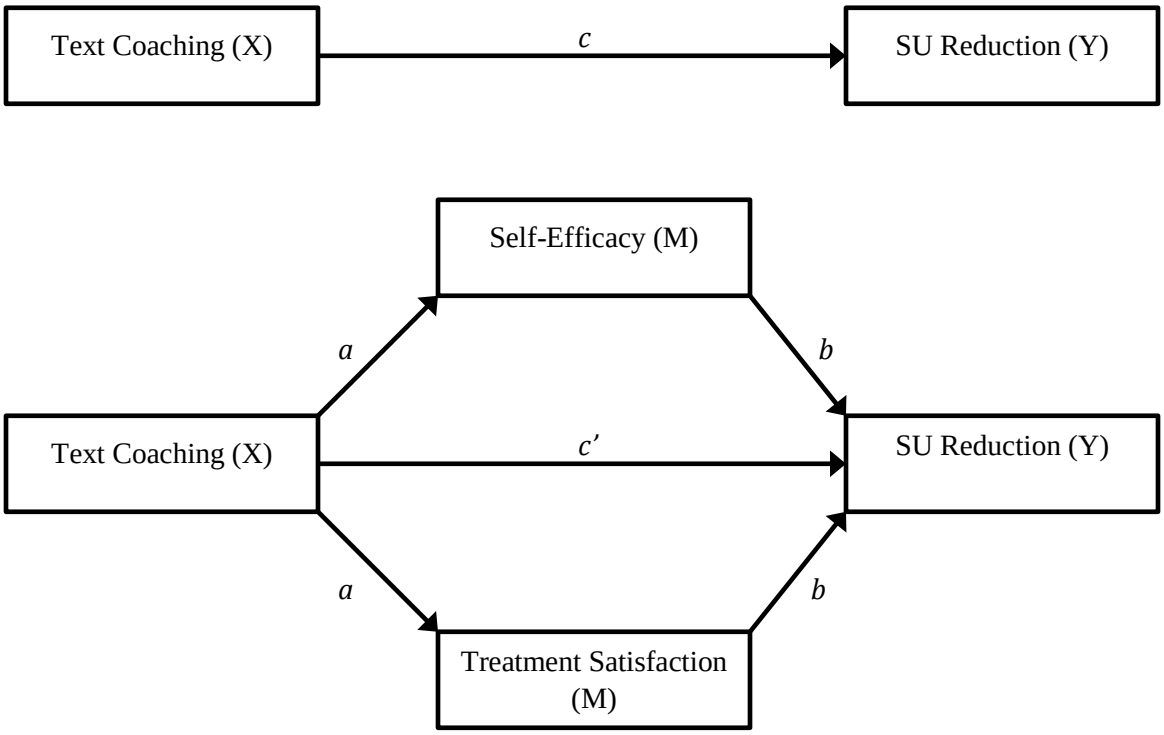

Figure 1. Proposed simultaneous double mediated model, Hayes (2013) Model 4.

Hypotheses

1) Treatment group will predict short-term substance use outcomes, such that clients in the text coaching group will evidence greater reduction in substance use at Week 4 follow-up and Week 8 follow-up compared to those who did not receive text coaching (READY as usual; RAU).
2) Treatment group will predict self-efficacy, such that individuals in the text coaching group will report higher self-efficacy compared to individuals in the RAU group.

3) Treatment group will predict client-perceived treatment satisfaction, such that individuals in the text coaching group will report higher treatment satisfaction compared to those in the RAU group.
4) Higher levels self-efficacy will predict greater reduction in substance use.
5) Higher levels of perceived treatment satisfaction will predict greater reduction in substance use.
6) Self-efficacy and perceived treatment satisfaction will have a significant indirect effect on the relationship between treatment group and substance use outcomes at Week 4 follow-up.

CHAPTER II

Method

Participants

Participants included high-school students in the greater Seattle area enrolled in Project READY, an eight-week, school-based substance use intervention that aims to reduce the effects of alcohol and drugs on youth through the utilization of Motivational Interviewing and Motivational Enhancement treatment approaches. Participants met eligibility if they were (a) referred to our substance use intervention by a school counselor, parent, teacher, peer or self-referred; (b) had used any substance (marijuana, alcohol, any other illicit drug or misused prescription drug) during the past 3 months; (c) were currently enrolled in the school; (d) were between 14-19 years old.

Procedure

Group assignment. To examine the additive effects of the text coaching intervention, outcomes from the current study were compared to outcomes from the previous two years of

Project READY, or Ready as Usual (RAU). Thus, all clients in the current study were assigned to the text coaching group (PC). Clients from the RAU group were identified as the treatment comparison group. Because affording a therapeutic-enhancement tool, like text coaching, to only some clients in an intervention that has been shown to be effective in reducing substance use outcomes is not encouraged under ethical guidelines, random assignment was not used in this study.

Project READY intervention. During the enrollment process, participants were informed of limits to confidentiality and their voluntarily participation in a clinical-research intervention. Participants completed eight-weekly sessions of intervention including 20-minutes of MI and:

1) Assessment and decisional balance
2) Personalized computer generated feedback of substance use behaviors and goal setting
3) Decisional balance and introduction of a diary card for tracking substance use
4) Change planning exercise where the participant chooses and elaborates a substance use change goal, four-week follow-up assessments, and diary card
5) MI check-in and diary card
6) MI check-in and diary card
7) MI check-in and diary card
8) MI check-in, eight-week follow-up assessments, and termination of intervention

Text coaching intervention. Additionally, participants in the PC group received weekly text coaching through a software program called Cel.ly™ during Sessions 1 through 4. Clinicians received a two-hour training of text-coaching protocol and procedures which included a standardized outline of MI-consistent text coaching and specific timeline for text coaching.

Clinicians initiated contact the day following the intervention session and the 4th day after the intervention session following via Cel.ly™ texts. Clinician initiated contact consisted of open-ended questions related to the in-session activities and scaled questions about use and effectiveness. Clinicians responded to each contact with a reflection of the response and an affirmation for responding. Clinicians could also provide information and answer questions at each contact. Clinicians were available to respond to participants from 7 o'clock in the morning to 9 o'clock in the evening. Clinicians also instructed participants that in the event of a crisis or emergency to call the suicide hotline or 911. A supervisor was available to the clinicians during each contact to respond to any crises or problems, and clinicians received weekly supervision regarding text-coaching interactions with their clients. Appendix A depicts the text coaching protocol for Sessions 1 through 4.

Outcome measures were assessed at intake, four-week, and eight-week time points. Table 1 displays time points for each outcome measure and the intervention content.

Table 1.
Project READY manualized treatment protocol and assessment time points

	Assessment	Intervention
Session 1	• Demographics • Substance use	• Decision balance • Text coaching
Session 2		• Feedback • Goal setting • Text coaching
Session 3		• Decisional balance • Diary card • Text coaching
Session 4	• Demographics • Substance use • Self-efficacy • Treatment effectiveness	• Change plan/relapse prevention • Diary card • Text coaching
Session 5		• Check-in
Session 6		• Check-in
Session 7		• Check-in
Session 8	• Substance use	• Check-in

Measures

Demographics. Demographic information was collected for all participants and included: age, gender, grade, ethnicity, number of days excused, skipped, or suspended from school within the past 90 days (collected at intake) and in the past month (collected at 4-week follow-up), as well as whether they were receiving services or counseling related to their drug or alcohol use, or for other reasons at the time of enrollment.

Substance use treatment outcomes. Substance use was measured using the Customary Drinking and Drug Use Record or CDDR (Brown, et al., 1998). The CDDR is a structured interview designed to assess recent (past three months) use in four different domains: drug and alcohol use, withdrawal, psychological and behavioral dependence, and use consequences. Substance use outcomes were reflected by a percent days abstinent scored. In previous studies, the CDDR has had strong internal consistency for this subscale, with alpha coefficients for alcohol and drug dependence among abusing samples of adolescents (alpha = .89 and .72, respectively) and community samples of adolescents (= .78 and .85, respectively; Brown et al., 1998).

Satisfaction with treatment. What I Got from Treatment (WIGT; Miller & Brown, 1994) was used to assess for satisfaction with Project READY. The original WIGT is comprised of 40 items related to two types of treatment content, "Addictive behaviors" and "Other concerns." The Addictive behaviors category includes items such as, "I found out for sure whether I have a problem with alcohol or other drugs." The Other concerns category includes items such as, "I got help in overcoming boredom." The second version of this questionnaire incorporates even more treatment components, and consists of 69 items (Miller & Brown, 2013). This study's version of the WIGT included 34 items. Items that pertain to treatment options not

offered by Project READY were removed from the WIGT (e.g., "I received detoxification to ease my withdrawal from alcohol or other drugs."). A number of the items retained for this study may have been irrelevant for some participants in Project READY. However, these items were kept because they referred to problems that are commonly related to substance use (e.g., "I got help with depression or moodiness"), and could be pertinent to some participants. Questions were answered on a 4-point scale (0 = NO, 1 = A little, 2 = Yes, 3 = YES!). Given that some items were relevant to some participants and not to others, the response option N/A (Not Applicable) was also be offered. Participants completed this questionnaire electronically with the computer facing away from the clinician, and submitted their answers before returning the computer to their clinician.

Self-efficacy. Self-efficacy was measured using the Situational Confidence Questionnaire (SCQ; Annis & Graham, 1988). The SCQ is a self-report assessment of an individual's perceived confidence to resist illicit drug and alcohol use in high-risk situations. This measure is comprised of 50 items that load onto eight subscales: unpleasant emotions/frustrations, physical discomfort, social problems at work or school, social tension, pleasant emotions, positive social situations, urges and temptations, and testing personal control. Psychometric evaluation in an adolescent sample of participants with and without a diagnosable substance use disorder indicated strong internal consistency across subscales and ranged from 0.89 to 0.97 (Kirisci, Moss, & Tarter, 1996). This study's version of the SCQ did not include questions pertaining to 'testing personal control' given that the items on this subscale were derived from a relapse-recovery framework and are intended for individuals that are in the recovery stage of their use. It was not assumed or required that participants enrolled in Project

READY enter into the recovery stage during their participation; thus, the 'testing personal control' questions were not relevant.

Control variables. Clients' baseline substance use was controlled for. Number of times participants met with their interventionist was also controlled for.

CHAPTER III

Results

Power Analysis

To determine an adequate sample size for the current study, an a priori power analysis was conducted using the statistical software G*Power (Faul, Erdfelder, Buchner, & Lang, 2009). Set with four predictors, a sample size of 65 (for .20 effect and power to .80) or greater was recommended to find a moderate effect.

Data Screening and Coding

Data was collected using Qualtrics, an online survey tool, and was downloaded into a file compatible with the most current version of the Statistical Package for the Social Sciences (SPSS; Version 21). Treatment group, the independent variable of this study, was dummy coded as a categorical variable (0 = *RAU* and 1 = *TC*). The mediators, perceived treatment effectiveness and self-efficacy, were computed as continuous variables. Substance use data from the CDDR was analyzed by computing the difference score in a composite score of alcohol frequency times duration and marijuana use frequency, separately, from intake to Week 4. The dependent variable of alcohol use and marijuana use was a continuous variable.

Prior to statistical analyses, data was assessed to ensure that the following assumptions of multiple linear regression were met: normality, linearity, homoscedasticity, independence and the absence of multicollinearity. Data was screened for normality (by examining skewness and

kurtosis), homogeneity of variance (using Levene's Test) and spherecity (with Mauchly's Test) according to recommendations given by Field (2009). Variables were square root transformed to adjust for skewness and kurtosis. Participants with missing data were excluded from analyses.

Statistical analyses

Descriptive analyses. The 76 clients who completed a minimum of the first four standardized sessions identified as Black/African American (21%), Asian/Pacific Islander (15%), White/Caucasian (35%), Hispanic/Latino (22%), or multi-racial/ethnic (7%). Participants' ages ranged from 14 to 19 (m = 16.1), and were predominantly male (62.1%). Overall, alcohol use was frequent (m = 3.97) and heavy (m = 5.19). Similarly, marijuana use was frequent (m = 14.60). Table 2 summarizes pre- and post-treatment means and standard deviations of target variables between the RAU and TC groups.

Preliminary analyses. Before testing the conceptual model, substance use outcomes, mediators of self-efficacy and treatment satisfaction, and other relevant study variables were tested by conducting bivariate correlations for all study variables. All substance use outcomes were correlated with one another; however, no factors correlated with the proposed mediators (see Table 2). Additionally, Independent Samples t-tests were conducted to compare differences in study variables between the RAU and TC groups (see Table 3).

Table 2.
Correlations of all relevant study variables

	TM	TT	Age	MJ_T1	MJ_T2	MJ_T3	ALC_T1	ALC_T2	ALC_T3	SAT	EFF
TM	--	-.01	.08	.17	.20	.17	.11	.28*	.16	.01	.12
TT		--	-.06	-.13	.00	.11	.08	.14	.21	-.09	.16
Age			--	.6	.02	.07	.02	-.04	-.03	.09	-.06
MJ_T1				--	.47**	.49**	.29**	.26*	.20	.07	-.29**
MJ_T2					--	.76**	.19	.38**	.32*	.17	.09
MJ_T3						--	.24	.51**	.35*	.13	.00
ALC_T1							--	.80**	.85**	.01	-.20
ALC_T2								--	.85**	.05	-.02
ALC_T3									--	.14	.01
SAT										--	.01
EFF											--

Notes. TM = number of face-to-face encounters, TT = number of times texted, SAT = treatment satisfaction, EFF = self-efficacy. * $p < 0.05$, ** $p < 0.0$

Table 3.
Pre- and post-treatment means and standard deviations of target variables between groups

	RAU (n = 51)	TC (n= 25)
Relevant study variables		
Number of face-to-face encounters	5.04 (1.33)	4.96 (2.03)
Number of times texted	.00 (.00)	8.81 (4.63)
Interventionist experience	2.59 (1.07)	2.69 (0.74)
Participant age	16.18 (1.61)	15.88 (0.91)
Gender	1.35 (0.48)	1.46 (0.51)
Ethnicity	2.64 (1.58)	2.46 (1.92)
Pre-treatment		
Alcohol use frequency	3.96 (4.94)	4.00 (4.82)
Alcohol use quantity	5.15 (4.87)	5.31 (6.11)
Marijuana use frequency	15.43 (10.10)	11.62 (9.67)
Session 4		
Alcohol use frequency	2.90 (4.29)	1.23 (1.73)
Alcohol use quantity	3.22 (3.67)	2.65 (3.41)
Marijuana use frequency	10.1 (9.99	7.77 (9.51)
	RAU (n = 35)	TC (n= 19)
Session 8		
Alcohol use frequency	2.37 (3.02)	1.74 (2.18)
Alcohol use quantity	2.43 (2.78)	2.37 (2.92)
Marijuana use frequency	8.51 (9.73)	7.63 (8.42)
Mediators		
Treatment satisfaction	1.52 (0.66)**	1.05 (0.67)**
Self-efficacy	68.90 (25.48)	75.06 (21.51)

* $p < 0.05$, ** $p < 0.01$

Main analyses. Six main hypotheses were examined using multiple regression analysis and Hayes' Process Model 4. Test of the first hypothesis, that group assignment would predict treatment outcomes at Session 4, was run in a multiple linear regression analysis. All control variables were entered in the first step of the regression analysis, including number of times participant met in-person with clinician and baseline substance use. Next, the independent variable of times clinician texted participant outside of session was entered. Support for the hypothesis was indicated if the pathway coefficient between the given independent and dependent variable was found to be significant and positive, above and beyond the influence of the control variables. In the case of alcohol use at Session 4, this test was found to be statistically significant ($R^2 = 0.11$, $F = 4.08$ [2, 67], $p < .05$). In the case of alcohol use at Session 8, the test was found to trend towards statistical significance ($R^2 = 0.06$, $F = 2.70$ [2, 48], $p = .08$). See Figure 2 for depictions of treatment course measured by alcohol quantity multiplied times frequency separated by group. In the case of marijuana use at Session 4, this test was not found to be statistically significant ($R^2 = 0.04$, $F = 1.49$ [2, 67], $p = .23$). In the case of marijuana use at Session 8, the test was not found to be statistically significant ($R^2 = 0.05$, $F = 1.11$ [2, 46], $p = .34$).

Model 4 outlined in the PROCESS manual (Hayes, 2013) was used to test the remaining five hypotheses, representing a simultaneous mediating effect of treatment satisfaction and self-efficacy on the pathway between treatment group and substance use outcomes (path *c*). Multiple mediation analyses using the statistical modeling tool, PROCESS (Hayes, 2013), within SPSS was used to test the conceptualized mediated model in Figure 1. PROCESS permits for conducting multiple mediator regression analysis, accounting for covariates. Bootstrapping was used to test inferences about the significance of mediation effects (*B* coefficients). The bootstrap

approach is considered superior to normal theory-based Sobel's test for the significance of mediation (Hayes, 2013).

This model allowed for estimates of the total and direct effects of treatment group on substance use outcomes and the total as well as all possible specific indirect effects of treatment group on substance use outcomes through treatment satisfaction and self-efficacy. This model produced 95% confidence intervals for these indirect effects. To test this model, treatment group was set as the predictor variable (*X*), substance use outcomes were set as the outcome variables (*Y*), and treatment effectiveness and self-efficacy were set as mediators (*M*). Each pathway of the model was examined first for each outcome variable, followed by the overall hypothesized mediation model for each outcome variable.

The model was first examined with alcohol use at Session 4 as the outcome variable. Number of times texted did not predict treatment satisfaction (a_2 = -0.00, p = .93) or self-efficacy (a_1 = 0.77, p = .23). Treatment satisfaction and self-efficacy did not predict alcohol use (b_2 = -0.44, p = .31) and (b_1 = -0.02, p = .13), respectively. There was no evidence that number of times texted directly influenced alcohol use (c' = -0.02, p = .72) when controlling for the mediators, treatment satisfaction and self-efficacy. Lastly, a bias-corrected bootstrap confidence interval for the indirect effect based on 5,000 bootstrap samples crossed zero, 95% CI [-0.05, 0.02], indicating a failure to predict the overall hypothesized mediation model.

The model was next examined with marijuana use at Session 4 as the outcome variable. Number of times texted did not predict treatment satisfaction (a_2 = -0.01, p = .58) or self-efficacy (a_1 = 0.74, p = .21). Treatment satisfaction and self-efficacy did not predict marijuana use (b_2 = 2.39, p = .13) and (b_1 = 0.05, p = .29), respectively. There was no evidence that number of times texted directly influenced marijuana use (c' = 0.05, p = .84) when controlling for the mediators,

treatment satisfaction and self-efficacy. Lastly, a bias-corrected bootstrap confidence interval for the indirect effect based on 5,000 bootstrap samples crossed zero, 95% CI [-0.15, 0.14], indicating a failure to predict the overall hypothesized mediation model.

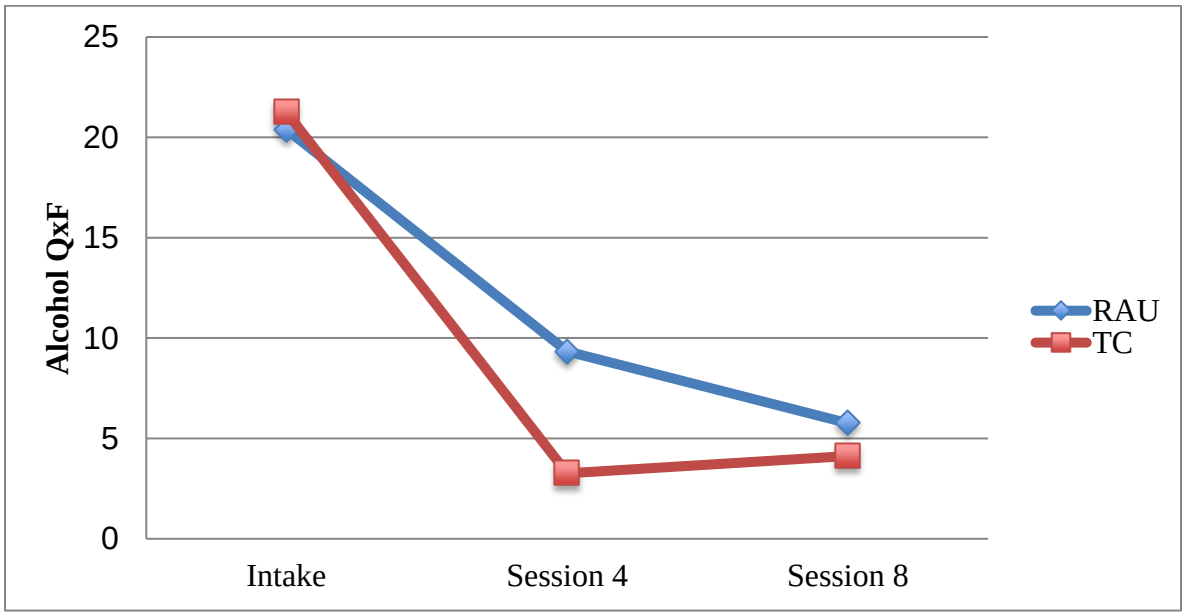

Figure 2. Alcohol quantity times frequency change over time for RAU and TC groups.

CHAPTER IV

Discussion

Multiple regression analyses indicated that text coaching predicted greater reduction in alcohol use, but not marijuana use at Session 4 follow-up. Mediation analyses conducted failed to predict significant pathways from treatment group to mediators of treatment satisfaction and self-efficacy, from those mediators to the outcome variables of alcohol use and marijuana use, or from the total mediation model which predicted that treatment group would have an indirect effect on alcohol and marijuana use outcomes through the mediators of treatment satisfaction and self-efficacy. Marijuana use was frequent heavy; which may indicate that higher therapeutic doses are necessary to decrease marijuana use over time. Findings from this study suggest that text coaching may be a promising adjunct to reducing the quantity and frequency of alcohol use

in high-risk adolescents. It is possible that text coaching is particularly helpful in reducing alcohol use given the pattern of episodic or binge drinking in adolescents. However, the mechanisms that explain why this relationship exists are still unclear.

Strengths and Limitations

An important strength of this study is that it is, to my knowledge, one of the first effectiveness studies on MI-based text coaching for substance use behavior change in high-risk using adolescents. Adolescent substance users are a particularly important target group given how often substance use disorders develop in adolescents; however, accessibility to treatment is limited. It is possible that the implementation of text coaching during the active treatment phase or during the after-care phase of treatment may help sustain reductions in use over time.

On the other hand, there were a several limitations and challenges to this study. One methodological challenge of this study was that it was not a randomized controlled trial. Given that this study was conducted with a high-risk substance using population, it was considered unethical to deny aspects of treatment to participants that could be therapeutically beneficial to them. Thus, the text coaching group was compared to two previous years of Project READY participants with different interventionists making it difficult to ascertain differences between interventionists in each group. The components that are expected to produce the greatest reduction in substance use, such as MI adherence, were not controlled for. Additionally, years of experience as Project READY interventionists were not controlled for. One solution to that might have been to use match controls with number of times participants met with their interventionists, interventionist years of experience, and baseline substance use; however, given the small sample size, this approach was ruled out. Future studies with a larger sample size should consider matched controls. It is also possible that there are more appropriate measures

that could be used to capture treatment satisfaction and self-efficacy. Additionally, it was difficult to isolate what specific components of text coaching was actually influencing behavior change, be it simply increasing clinician to client contact or enhancing components of MI. Future studies would benefit from designing multiple treatment groups to better answer this question.

There are numerous limitations to this study in regard to the accessibility of the intervention. Though text coaching may increase access and potential reach of interventions outside of traditional face-to-face settings, it is unclear what conditions participants accessed the text-coaching intervention (e.g., at home, around family, around peers, while using substances) which may present distractions from the intervention. Further, provision of interventions outside of traditional research and clinical settings diminish control of therapeutic access, use, and monitoring, which is especially a concern with more severe substance use problems. An additional accessibility limitation of this study was that some participants did not have access to a smartphone or computer outside of school hours and thus could only access the web-based component of the text-coaching intervention at school; thus, it was unclear whether participants successfully viewed text messages. Even with providing both mobile- and web-based access, that did not ensure exposure and use of all possible content.

Another potential limitation to this study was the duration and exposure of the text-coaching intervention. In this study, text-coaching was only provided twice a week during the first 4-weeks of the intervention calling into question whether this was an adequate therapeutic dose of text-coaching. Further, because motivation to change substance use is non-linear and subject to frequent shifts between stages of changes, a fixed, time-controlled intervention may not be as effective as a more dynamic and responsive intervention that optimizes an individual's

readiness to change. Despite these limitations, the findings from this study provide rationale for further studies examining the utility of text coaching interventions, particularly in adolescent populations as they may be in the beginning stages of developing risky substance use without adequate and appropriate intervention resources.

Future Studies

The results of this study and previous studies similar in nature should compel future researchers to further examine the mechanisms of change that mediate the relationship between technology-based interventions, like text coaching, and substance use outcomes. Future studies could benefit from providing varying duration and exposures of text-coaching to better capture the optimal usage of the intervention to receive greatest intervention effectiveness. Limited research exists on the effects of communication among adolescent participants enrolled in substance use interventions. Future clinical research studies that explore the benefit of group discussion boards of participants may add valued insight into its use as an additional layer of support in substance use change goals.

Secondly, it may be interesting to enhance specific components of the manualized Project READY protocol to determine which components explain the greatest substance use change over time. For example, comparing the effectiveness of text coaching with specific goal-setting, reflective listening, or pros and cons components may help tailor the design of text coaching interventions in the future. Also, given that we know the strong influence that peer contact has on substance use, one mediator worth further examination is determining a participant's intrinsic versus extrinsic motivation to change, as well as their motivation to use.

Conclusion

The design and delivery of technology-based interventions such as text-coaching is becoming an increasingly relevant and useful tool in the treatment of substance use disorders. It has the potential to reach underserved populations, such as high-risk using adolescents, with the added benefits of cost-effectiveness, increased access, and better utilization of components of treatment that support the motivation to change substance use patterns. It is unclear if these interventions could completely replace traditional face-to-face treatment, but this study provides support of its effectiveness as a supplement that may allow for more immediate access to therapeutic support not currently afforded in traditional outpatient treatment settings.

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Appendix A. Project READY text coaching protocol.

***Clients will <u>ALWAYS</u>** receive a **greeting, summary, open-ended question, and reminder** on **Day 1**
***Clients will <u>ALWAYS</u>** receive a **greeting, prime, open ended question, and reminder** on **Day 4**
*** Try contacting your client at a time that they will most likely respond! If they do not have a cell phone, ask when they are most often by a computer and reach out then**

Post Session 1

Day 1

{S.O.A.R.}

Greeting	**Summary**	**Open-ended question**	**Affirmation**	**Reflection**	Reminder
Hey [client's name]! Hi _____.	Thanks for meeting with me yesterday and filling out all of those questionnaires. We talked about how smoking and drinking typically goes for you and you mentioned [highlight one point].	I'm wondering, what did you think about writing out the pros and cons?		So you feel like… It sounds like you… You're wondering if… It seems as if… I get the sense that… It feels as though…	I'll check back in with you on [whatever Day 4 is for you] to see how you're feeling.

Day 4

{Prime.O.A.R.}

Greeting	**Prime**	**Open-ended question**	**Affirmation**	**Reflection**	Reminder
Hey [client's name]! Hi _____.	Looking forward to going over the feedback with you on [Day you meet with client].	Now that it's been a couple of days, what was it like answering those questions?		So you feel like… It sounds like you… You're wondering if… It seems as if… I get the sense that… It feels as though…	See you on [Day you meet with client].

Post Session 2

Day 1

{S.O.A.R.}

Greeting	**Summary**	**Open-ended question**	**Affirmation**	**Reflection**	Reminder
Hey [client's name]! Hi _____.	I enjoyed going over feedback with you. Some things you had questions about, some things seemed on target. And you set some goals that seem really important to you. [highlight one point from their goals]	What do you make of the feedback now that you've had more time to think about it? Text me back what you think.		So you feel like… It sounds like you… You're wondering if… It seems as if… I get the sense that… It feels as though…	[Whatever Day 4 is for you] I'll check back about what else you might be noticing.

Day 4

{Prime.O.A.R.}

Greeting	**Prime**	**Open-ended question**	**Affirmation**	**Reflection**	Reminder
Hey [client's name]! Hi _____.	Looking forward to meeting with you next week to talk more about what you think about _____ [substance they use].	What have you noticed this week about your goals since writing them down?		So you feel like… It sounds like you… You're wondering if… It seems as if… I get the sense that… It feels as though…	See you on [Day you meet with client].

Post Session 3

Day 1

{S.O.A.R.}

Greeting	**Summary**	**Open-ended question**	**Affirmation**	**Reflection**	Reminder
Hey [client's name]! Hi _____.	I really enjoyed walking through the pros and cons and looking at how things have changed for you [highlight one point from their DB]	What kinds of situations could you imagine where you could use the pros and cons thinking? Text me back your thoughts.		So you feel like… It sounds like you… You're wondering if… It seems as if… I get the sense that… It feels as though…	I'll check back in with you on [whatever Day 4 is for you] to see if that situation came up for you.

Day 4

{Prime.O.A.R.}

Greeting	**Prime**	**Open-ended question**	**Affirmation**	**Reflection**	Reminder
Hey [client's name]! Hi _____.	[Day you meet with client] is our last day of activities. You've worked really hard!	How has it gone for you this week when you found yourself in one of those pros and cons situations?		So you feel like… It sounds like you… You're wondering if… It seems as if… I get the sense that… It feels as though…	See you on [Day you meet with client].

Post Session 4

Day 1

{S.O.A.R.}

Greeting	**Summary**	**Open-ended question**	**Affirmation**	**Reflection**	Reminder
Hey [client's name]! Hi _____.	Great job this week! You completed the questionnaires and made a plan for what you would like to do moving forward. [highlight one point related to their plan]	Now that you've had a day, how will you put your plan into action?		So you feel like… It sounds like you… You're wondering if… It seems as if… I get the sense that… It feels as though…	I'll check back in with you on [whatever Day 4 is for you] to see how it's going.

Day 4

{Prime.O.A.R.}

Greeting	**Prime**	**Open-ended question**	**Affirmation**	**Reflection**	Reminder
Hey [client's name]! Hi _____.	Next week I'll be checking in with you for just a few minutes.	But tell me, what part of the plan did you use this week?		So you feel like… It sounds like you… You're wondering if… It seems as if… I get the sense that… It feels as though…	See you on [Day you meet with client].

Examples of affirmations:

I appreciate that you are willing to share that with me.
You are clearly a very resourceful person
You handled yourself really well in that situation.
That's a good suggestion.
Congratulations on your success of _____.
If I were in your shoes, I don't know if I could have managed nearly so well.
I've really enjoyed what you've had to say.
You are very courageous to be so open about this.
You've accomplished a lot in a short time.
You've tried very hard to quit.
It seems as though you have put a lot of thought into your goals.
You have a good plan of action.
It sounds like you are struggling with making these changes, but you have had some success at making some.
It sounds like you have made real progress.