A randomized controlled trial of an online relapse prevention program for adolescents in treatment

Presenter: Kimberlee J. Trudeau, Ph.D., Inflexxion, Inc., Newton, MA

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The Problem

"When substance use disorders occur in adolescence, they affect key developmental and social transitions, and they can interfere with normal brain maturation. These potentially lifelong consequences make addressing adolescent drug use an urgent matter."

Principles of Adolescent Substance Use Disorder Treatment: A Research-Based Guide

NIDA, 2014

Background

- Technology is providing new opportunities for extending substance use treatment efforts (e.g., Marsch et al., 2014).

- Preliminary qualitative work indicated adolescent-aged clients and substance abuse counselor interest in an online relapse prevention program (Trudeau et al., 2012).

- Multiple theories (e.g., Social Learning Theory, Bandura, 1984) and instructional design questions (Dirksen, 2012) guided our efforts to translate evidence-based relapse prevention skills into online content for this population.

Study Design

- A randomized, controlled trial was conducted to test the efficacy of the Navigating my Journey program.

- Participants were recruited from a substance abuse treatment center then randomized.

- Online self-report assessments were conducted at baseline, 1-month post-baseline, 3-months post-baseline, and 6-months post-baseline.

- Participants were compensated up to $180 for completing all assessments over the course of the six month study.

Hypotheses

Compared to those in the attention control condition, adolescents randomized to Navigating my Journey will have:

- INCREASED MOTIVATION to Change. *University of Rhode Island Change Assessment Questionnaire (URICA; McConnaughy et al., 1983, 1989)*

- INCREASED SELF-EFFICACY. *Drug Avoidance Self-Efficacy Scale (DASES; Martin et al., 1995)*

- INCREASED RELAPSE COPING SKILLS. *Adolescent Relapse Coping Questionnaire (ARCQ, Myers et al., 2006)*

- DECREASED DRUG USE. Composite score developed from number of days of reported substance use in the past 30 days (Lord et al., 2011).

Study conditions

ATTENTION CONTROL: Links to Nemours Foundation website content on non-substance use related health topics (e.g., sleep, hydration, hygiene, exercise, and nutrition)

ACTIVE INTERVENTION: Navigating my Journey

- Designed to reinforce evidence-based relapse prevention skills learned in treatment
- There is a total of 20 lessons
- Each lesson includes a Worksheet and recommended Challenges
- Counselors review client activity online then discuss with clients in person

Navigating my Journey

Email

Password

Log in

Forgot your password?
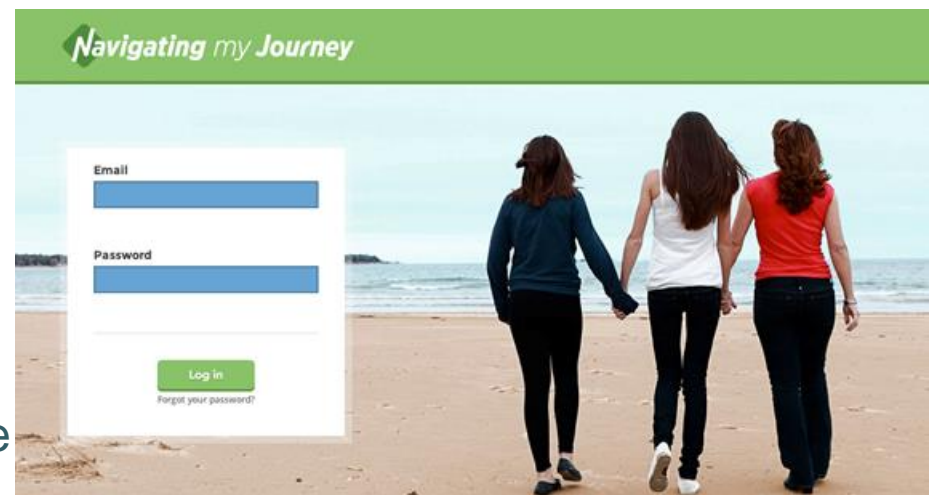
WHAT IS NAVIGATING MY JOURNEY?

With funding from NIH, Inflexxion developed this online relapse prevention program for adolescents to use with their counselors during outpatient substance use treatment.

READ MORE >

An example of the instructional design of an NmJ lesson -- *Connecting the Dots between Decisions and Consequences*

LEARNER CONTEXT	KEY LESSON ELEMENTS	LEARNING OBJECTIVES	WORKSHEET QUESTIONS	ONLINE INTERACTION & DESIGN ELEMENTS	Optional CHALLENGES with REMINDERS
Assumptions: The learner may or may not be *internally* motivated to change SA behaviors	Consequences in everyday life – what you expect to happen after making a choice gives you feedback to help make decisions. For example, a typical feedback loop is: getting up on time=> won't miss the bus => saves time, won't have to walk =>more likely to get up on time tomorrow. This feedback loop happens every day, in all kinds of situations. Applying consequences to substance use --recognizing the relationship between substance use and life events and consequences. How looking at the consequences of substance use in your life will personally help YOU. Recognizing the relationship between substance use and personal life events can help a teen feel more in control and can help maintain motivation.	The learner will be able recognize common ways that substance use can impact a youth's life. The learner will be able to describe consequences for two examples given in the lesson.	1. How do you think using may have affected one of these areas of your life: Your physical health Your feelings about yourself Your relationships with your family Your future? 2. What do you think would happen to that area of your life if you decided to keep using? 3. What do you think would happen to that area of your life if you decided to stop using?	Simple scenario used to illustrate consequences of everyday life. Will consist of two "decisions", User will not choose but rather see both outcomes. Video montage of teens describing their experiences with decisions they've made which led to using and other negative consequences.	Pick one of these activities to do for 10 minutes: run, jump rope, walk, sit quietly and focus on your breathing, play a game, or dance. What are the good things that happened, and what are the not so good things that happened? Talk to someone you trust who has made a big decision in their life. What did they expect would happen after they made that decision? What were the actual consequences of that decision?

MY DASHBOARD

RECOMMENDED LESSON

VIEW ALL

Get the Most Out of Treatment

Topic: Self – Helping Yourself

Treatment is an opportunity to change. You'll have a counselor, hear others' stories of recovery, and get ideas on bettering your life.

START LESSON

MY ACCOMPLISHMENTS

0 Lessons Completed

0 Challenges Completed

MY CHALLENGES

Must complete a lesson to set challenges

Stories About Support and Treatment

Listen to two or more stories below to continue.

Robert, age 22, loves watching movies and basketball (go, Celtics!). His drug of choice was alcohol, but he would use anything to get him high (e.g., cocaine, marijuana, prescription pills). Robert has been sober for 14 months. He's in college and has a job.

WHAT ABOUT FRIENDS WHO STILL USE?

Ashley used to drink heavily, especially on weekends. Her friend Melissa invited Ashley to a Saturday night sleepover with her old group of friends.

Ashley asked herself:

1. When did we drink together in the past? ▲

A lot on weekends – we used to sneak out of sleepovers and get totally wasted

2. What are the pros and cons of going to the sleepover with Melissa and the other girls? ▼

3. Are there times or places we could be together and not use? ▼

4. Do Melissa and the other girls support my recovery? ▼

Ashley said no to the sleepover and made a plan with Melissa to hang out after school next week.

What Helps to Make Safe Choices

Here are some suggestions from Sara, Elle, Brittney, and Louie about how to make safe choices.

Listen to two or more stories below to continue.

- I look at my intentions and where I'm at in my recovery. ❯
- I think about who is going to be there. ❯
- I trust my gut when I start to feel anxious. ❯
- If I go, I go with someone who supports my recovery and we have an escape plan. ❯

Example of Problem Solving – 2. Define the Problem

First, Ben had to think about why he was worried about going back to school.

His goal was to stay sober. He was worried his friends would expect him to use with them again, and that is a risky situation for him.

THOUGHTS ABOUT TRIGGERS AFFECT ACTIONS

Jesse used to go out and get high during his 4th period study hall at school. Today, the 4th period bell rang and made him think about using. Here are possible thoughts that Jesse could have:

Trigger: Bell rings

Thought:

> 1. *I hate study hall. It's so boring. I'm probably going to fail my history test this afternoon anyway, so I might as well get high.*

Thoughts

> 2. *I'm nervous about my history test 6th period. Getting high is the only way I can really relax.*

> 3. *I'm going to go to study hall. I could study for my test. I need to get a good grade. It will help me to think about the test instead of getting high.*

Outcome:

Jesse felt bored and left school with his friends. He got high and skipped the rest of the school day. He later told himself that getting high just happened by accident.

Worksheet

Now that you've finished the lesson about making the most of treatment, answer the questions in the worksheet below.

This worksheet has 3 questions to answer, this one and one on the next 2 pages. To finish this worksheet, answer all 3 and click "Send to Counselor" at the end.

1 Give an example of a time in your life when you felt really proud or successful. What did you do? How did you do it? What strengths or skills did you use?

WHAT SPARKS YOUR DESIRE TO USE?

Select Challenges for this Lesson

Now you can select a Challenge to help you practice the points from the Lesson. You can edit or select different Challenges later by going to the Edit Challenges page.

Select a challenge	Set Reminder ❓
☑ Talk to someone in recovery about their triggers.	On 🔔
☐ Express what it feels like to have a craving through drawing, writing, music, etc.	🔔 Off
☐ Go to the beach or find a video of waves crashing. Think about how, like cravings, waves build, crest, and how you can ride them out.	🔔 Off

Go To My Home

Participant Characteristics

- Data were analyzed from a total of 129 adolescent-aged participants (13 to 23 years of age) receiving substance abuse treatment. Mean age was 17.6 with an SD of 2.1 years.

- The sample was majority female (57%), non-Caucasian (91%), and non-Hispanic (76%).

- Participants reported they were currently in treatment for alcohol abuse only (26%), drug abuse only (24%), or both alcohol and drug abuse (50%).

- There were no differences in demographic characteristics of the participants by condition.

Primary Outcomes

We used a linear mixed modeling (LMM) approach to test for differences between conditions on each outcome.

- INCREASED MOTIVATION: Participants in the experimental condition reported a significantly greater increase in motivation from baseline to 3-month follow up (t=2.89, p=0.004) and from baseline to 6-month follow up (t=3.30, p=0.001).

- DECREASED DRUG USE: Participants in the experimental condition reported a greater decrease in composite drug score from baseline to 3-month follow up (t=-2.76, p=0.006).

- NO significant differences were found for SELF-EFFICACY or RELAPSE COPING SKILLS.

Post Hoc Analyses

- COUNSELOR: The counselor variable did not moderate intervention effects on the outcomes.

- AGE: Age moderated intervention effects on the composite drug score outcome ($F_{3,219}=3.79$, $p=0.011$). Specifically, older adolescents who used NmJ had better outcomes.

- ENGAGEMENT: Exploratory dosage analyses of engagement with the NmJ program suggested that more engagement -- as measured by number of challenges selected and number of minutes on NmJ -- was associated with decreased drug use and increased self-efficacy over time.

Conclusions

- In this pilot study, access to NmJ was associated with improved motivation to reduce substance use and decreased substance use.

- These findings suggest that evidence-based relapse prevention skills can be translated into online content for adolescents.

- Limitations include one study site and a small sample size due to implementation errors.

- Future research to develop and test electronic health interventions with theory-based features is encouraged.

Tina: "Becoming sober is the beginning of a new life that takes work...but is definitely worth it."

Thank you.

Kimberlee J. Trudeau, Ph.D.
ktrudeau@inflexxion.com, Newton, MA