

# A Guide to Using Text Messages

to Improve Substance Use  
Treatment Outcomes



Mountain Plains

**ATTC**

Addiction Technology Transfer Center Network  
Funded by Substance Abuse and Mental Health Services Administration



# A Guide to Using Text Messages to Improve Substance Use Treatment Outcomes

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## Introduction to the Guide

Helping individuals remain in treatment or continue to participate in recovery support services can be difficult. However, with advances in both technology and science, text messages can be used to increase engagement, enhance education about the individual's condition, and help manage craving and other negative thoughts/moods. This step-by-step guide contains information for providers of both treatment and recovery support services on how to use text messages to deliver those services. It provides evidence for the effectiveness of text reminders and tips, shows a basic strategy for organizing and sending batch text messages, offers suggestions for developing message content, and demonstrates how to develop different automated texting sequences using a text message service provider.

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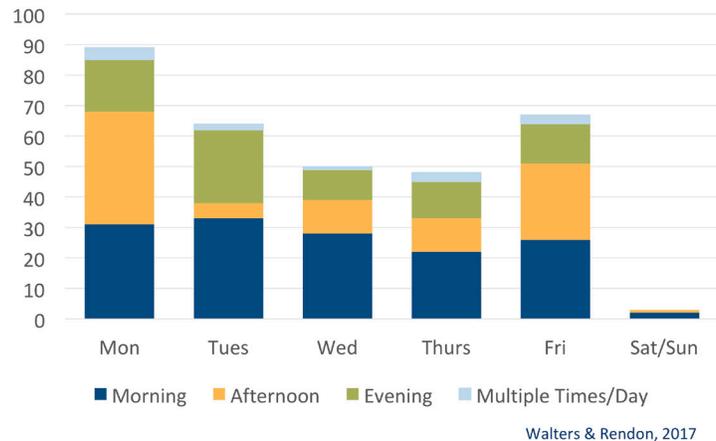
## Texting is Everywhere!

The vast majority of Americans use cellphones; 95% have a cellphone and 77% have a smartphone (Pew Research Center, 2018). People use smartphones to do a broad range of daily tasks, from accessing news and events, to navigating traffic, to researching health conditions, to banking, to applying for jobs. A report from the Pew Research Institute (2015) found that smartphone ownership is higher among young people, and people with greater incomes and education. However, people with lower levels of income and education are more likely to say that smartphones are the main way they access online information.

People with higher incomes are more likely to own cellphones, but people with lower incomes are more likely to use them as the main way to access the internet

Text messages are the most popular smartphone feature. In the Pew report (2015), 97% of smartphone owners sent or received text messages in a typical week. In fact, each day people in the US send over six billion text messages.

**When did people want reminders? A study of permanent supportive housing residents.**



One common use of text messages is to remind people to do (or not do) something. For instance, text messages can remind people to keep a doctor's appointment, quit smoking, or go for a walk. In a narrative review of 162 studies that used text message reminders, Schwebel and Larimer (2018) found that in nearly all cases, text messages increased appointment attendance and medical compliance. Notably, text messages increased appointment attendance as well as appropriate cancellation when clients could not attend. In addition to improving health indicators, the authors noted many benefits from using text reminders, including the low cost, ease of sending messages, and rapid message delivery. In one example from our own work, low-income clients in a health coaching intervention frequently wanted to receive text reminders about medical and treatment appointments (e.g., "*Doctor's appointment at 9am tomorrow*") and most often wanted reminders in the morning or near the beginning of the week (Walters &

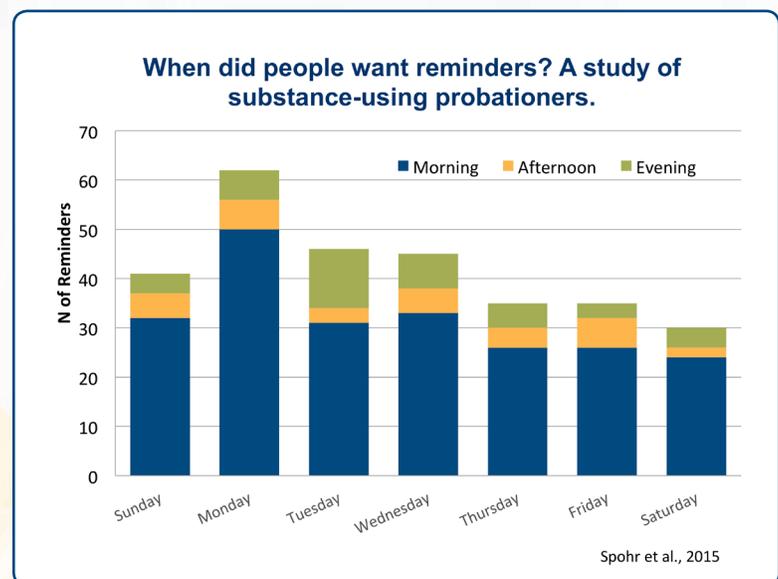
Text messages are a convenient way to remind people to attend treatment, to reinforce treatment concepts, and to help people achieve goals that were set during treatment.

Rendon, 2017). Clients were much more likely to set positively-framed messages (e.g., “*It’s time to get up for your walk!*”), rather than negatively-framed messages (e.g., “*Don’t drink soda today.*”) Nearly three quarters of participants said that the text reminders were a helpful part of the coaching intervention.

Text messages can transmit information through words, pictures, and videos, but they can also convey more complicated themes that use cognitive-behavioral, motivational or solution focused strategies. The best evidence for the usefulness of text messages in substance use disorders recovery comes from studies of smoking cessation. Spohr et al. (2015) identified 13 randomized smoking intervention studies that were delivered primarily through text messages. People who were randomized to receive text messages were 36% more likely to quit smoking than people who did not receive text messages. Text messages produced quit rates that were similar to other brief smoking cessation programs, such as quit lines and nicotine replacement therapy, despite being delivered at a lower cost.

In addition to smoking cessation, a few studies have found that text messages are helpful in avoiding other kinds of substance use. In one example, Gonzales et al. (2014) found that text messages were an effective way to help youth transition out of community-based substance use disorders treatment. Young people who received a texting intervention were significantly less likely to relapse in the 90 days after discharge, compared to young people who did not receive a texting intervention. Crombie et al. (2018) found that a 12-week texting intervention had a modest, though not statistically significant effect on heavy drinking among “at risk” men after 12 months. Finally, Spohr et al. (2015) found that substance-using probationers who used a computer-based system to set goals

Texting is low cost and widely available. There is evidence from research studies that text messages can improve substance use treatment outcomes.



Text messages are easily received and (almost) universally viewed by recipients.

and reminders were nearly twice as likely to initiate treatment after 2 months, compared to clients who did not. Common goals included making lists of things that would assist with sobriety, becoming more organized, reaching out to positive social supports, and making lists of goals and plans. Clients were more likely to request reminders in the morning and at the beginning of the week. The authors concluded that electronic reminders may be a cost-effective intervention for people in the criminal justice system.

Overall, there are a number of benefits of using text messages as an adjunct to substance use disorders treatment:

- *Text messages are passive.* Once people have agreed to receive messages, they will continue to receive them unless they opt out. About 99% of text messages are opened, most within the first 5 seconds (Mobilesquared, 2010).
- *Text messages can reach a large number of people.* Once a text message system is established, it can easily be scaled to a larger group; reaching 50 people takes the same effort as reaching 5 people.
- *Text messages are convenient and easy to use.* They can be used to help people track their own behavior, to collect data for others, set reminders, and provide booster messages about treatment content (Pew Research Center, 2018).
- *Text messages can be tailored to different groups of people.* It is easy, for instance, to send messages based on gender, stage of change, length of sobriety, location, or treatment group content (Noar, Benac, & Harris, 2007).
- *Text messages reach clients in “real time”* and may thus be more effective than treatment messages given in an artificial treatment environment (Spohr, Nandy, et al., 2015).

## Three Goals of Texting

B. J. Fogg (2009) was one of the first researchers to show how technology shapes people's behavior. Fogg talked about three features of "persuasive" technology: motivation, ability and triggers. The first feature, motivation, addresses the urgency or salience of something. If motivation is high, people will do difficult things; if motivation is low, people will only do very easy things. Technology can increase motivation by providing tailored feedback, giving normative comparisons, or highlighting the benefits of change. The second feature, ability, makes something easier to do. Technology can improve a person's ability by providing suggestions or advice, or by speeding access to resources. The best way to improve ability is to focus on a person's scarcest resources at any given moment. For instance, if a person is having difficulty with transportation, a text message might contain a link to a public transportation website, whereas if a person is struggling with social support, a text message might provide a link to support groups in the community. Finally, triggers can remind people of their goals during times when they may be more likely to act on them. The best triggers are designed as part of a logical sequence. For instance, if a treatment group wants to increase social support for sobriety, a series of text messages might include: 1) *make a list of sober people*, 2) *jot down a few sober activities*, and 3) *call at least one person today and invite them to an activity*.

Technology is most helpful when it builds motivation, makes something easier to do, and reminds people to do something in real time.

**Here are examples of messages in the three areas:**

### Motivation

*Staying sober is one way to make your family proud of you!*

### Ability

*The Parenting Center offers free programs for people who are raising kids. Call 817-332-6399 or visit <http://theparentingcenter.org/services/>*

### Trigger

*It's almost the weekend! Make plans now to spend time with sober people!*

## The Language of Texting

Texting uses its own kind of language. Even though most people tolerate and use “textese”—a version of English that uses numbers and symbols to produce an ultra-concise message—we know relatively little about the types of messages people actually want to receive. Muench et al. (2014) examined user preference for text messages in 22 different categories, including length, personal voice, and tone. For each category, the authors showed people two messages that had the same information, but were presented in different ways. Drawing from studies like this, we suggest the following:

1. **Avoid textese.** Use full words, and spell them correctly.
  - **Don't say:** *How r you 2day*
  - **Say:** *How are you today?*
2. **Use benefit-oriented language.** Talk about the benefits of change, rather than about bad things that could happen if they don't change.
  - **Don't say:** *Think of what you might lose if you relapse.*
  - **Say:** *Think of what you are gaining by staying sober.*
3. **Use “I” statements.** Make it sound as if the text message is coming from a person.
  - **Don't say:** *Your group work is appreciated!*
  - **Say:** *I/We appreciate all the work you're doing in group!*
4. **Be directive.** Phrase messages in a directive (but not commanding) tone.
  - **Don't say:** *Some people find that it's helpful to make a list of goals for the next year.*
  - **Say:** *Spend five minutes today jotting down some goals for the next year.*
5. **Consider tailoring.** It's more work, and may cost a little bit more, but can get you better results if you tailor messages based on gender, age, motivation or other things you think are important.
6. **Send tips and resources.** Consumers are often flooded with tips or ideas all at once. Text messaging should provide tips one at a time. Sending web or video links can be a powerful way to send a large resource in a tiny sentence. In fact, the ability to provide links means that a short message can be a gateway to a video, information, services, or even online treatment.

Send texts that are positively-framed, direct, personalized and sound like they are from a person.

## Developing a Texting Sequence

To send bulk texts, you will need a text message service provider. The setup is done in advance and the system will take care of sending the text messages when you want them delivered. There are many text messaging service providers in the marketplace. Three that have good reputations are Sendhub, Textedly and Twilio:

Set up a texting sequence that supports your treatment flow. Use a texting provider to send messages that support your treatment sequence.

- <https://www.sendhub.com/>
- <https://www.textedly.com/>
- <https://www.twilio.com/>

We encourage you to investigate some of the providers on your own. We've used Textedly in our demonstrations because it has a nice combination of features, service, and price. You may find one that you like better.

### 1. Sign up for a plan.

Textedly allows people to receive a free trial with one keyword for 14 days. This should be enough time to develop messages and try out the system. (Make sure to save your messages in a separate document in case you change message providers.) Each keyword means that you can have one track or sequence of texts. So, if you wanted to develop texts for two different treatment groups, you would need to purchase a plan with at least two keywords.

START WITH 14 DAYS FREE

BILLED MONTHLY    BILLED ANNUALLY (GET 20% MORE)

Starter	Plus	Enterprise	Elite
<b>FREE</b> 14 day trial	<b>\$25</b> per month	<b>\$40</b> per month	<b>\$55</b> per month
300 Messages 1 Custom Keyword Incoming Messages: FREE	2,000 Messages/Month 2 Custom Keywords Incoming Messages: FREE	3,500 Messages/Month 3 Custom Keywords Incoming Messages: FREE	5,000 Messages/Month 4 Custom Keywords Incoming Messages: FREE
Try	Buy	Buy	Buy

Most Popular

Use a trial plan to decide if the texting service is right for you.

Consider the number of tracks and messages you will send to determine the right plan.

**Tip:** Textedly allows you to purchase additional keywords within each plan, which may be more cost effective if you are not sending many messages. For instance, adding a keyword to the “Plus” plan (3 total) would be cheaper than purchasing the “Enterprise” plan.

- 2. Choose your keywords.** Click on the Keyword tab and click “New Keyword.” Keywords are how clients sign up to receive your text messages. For example, you could use the keyword “THURSDAY” to create a series of text messages to accompany a Thursday treatment group. To receive those messages, clients would text the keyword (e.g., *THURSDAY*) to the phone number that Textedly provides. You will need different keywords if you have more than one texting sequence. For instance, if you want separate texts for a substance use disorders groups (e.g., *SOBERLIFE*), a smoking cessation group (e.g., *SMOKEFREE*), and a parenting group (e.g., *HAPPYKIDS*), that would be three keywords. (Note: Textedly also allows you to enter phone numbers manually if you want to control who receives the text messages.) Finally, type in a brief welcome message that lets people know they will be receiving the text messages (e.g., “*Thanks for signing up for the Sober Life group messages. We’re looking forward to seeing you in group!*”). At the end of the welcome message, Textedly includes a brief statement telling people how to stop the messages if they do not want to receive them anymore. When the keyword is ready to go, follow the instructions to subscribe to that group.

Your keyword may need to be approved by the texting provider. Make sure you allow plenty of time to test the system.

**Tip:** Textedly will want to review your keyword before allowing you to use it. You can still develop your text messages and people can still subscribe to your keyword(s), but they will not receive messages until the keyword has been approved.

- 3. Create your messages.** Click on the Messages tab and click “New Message.” The following sections give examples of different kinds of text message sequences. Click “Add” and enter the keyword you want each message to be associated with. Text messages should be limited to 160 characters (phones may break longer messages into separate texts). You have the option of ending your messages with a brief postscript like “Do not reply to this message” or “Text STOP to end.” Pick the date and time you want your message to be sent. If you’re curious what the message looks like, click “Send Now” to see it on your phone.

Make sure to limit your messages to no more than 160 characters to avoid splitting them up.

**Tip:** If you want to include a link to an online video, document or form, enter the web address into the URL shortener. It will condense the web address in the text message.

Most intervention studies have used no more than 3-4 texts a week. Different groups of people may want texts at different times.

Make sure your messaging strategy is compatible with legal guidelines.

- 4. Decide how many and when to send the messages.** Most intervention studies have used no more than 3-4 text messages per week, however some people may find it helpful to receive messages more frequently. Some programs start with more frequent messaging, and then taper off as the treatment progresses. If people are receiving too many messages, they can always opt out of the remaining messages by replying STOP. You should also consider when you want your messages sent. In a program for drug-using probationers, people typically wanted reminders first thing in the morning (e.g., 8am); however, when working with supportive housing residents, people often wanted reminders later in the day. We found that the sleep/wake times were different between the two groups, with the supportive housing residents typically waking up later. Finally, we usually schedule texts around the treatment group schedule. For instance, we might send a text right after the group congratulating people on their attendance; 2-3 texts during the week to remind people to use treatment concepts, and a text the morning of the next meeting to remind people to attend the group.

**Tip:** If people respond to a text message, that response goes to your personal inbox at the Textedly website. You can sign up to be alerted when you have a message. However, this is not a secure way of sharing information, and thus we discourage clients from responding to text messages. You can also include a brief statement in the welcome message telling clients how to reach you (e.g., *“Please do not reply to these text messages. If you need help, contact the treatment center directly at 214-555-1212”*).

- 5. Get permission.** Talk to your legal counsel or security officer to make sure you understand what should be sent via text message. As a rule, we avoid messages that contain anything that would be considered protected health information. Our tailoring is done using general characteristics such as gender or motivation. Importantly, the examples here use a simple one-way messaging format. Clients cannot “chat” with others in the texting group, nor can they reach you on your personal cellphone unless you include that information in your messages.
- 6. Invite clients.** Invite participants to text a keyword to your 5-digit number in order to join a particular sequence. They can join as many as they like. Remember that, for tailored sequences, you’ll have to know something about them first (e.g., their gender or level of motivation).

Three different formats for texting sequences include:

1) repeating reminders with fixed messages,

2) repeating reminders with changing content, and

3) tailored tracks for different groups of people.

## Three Sample Designs

In this section, we give three examples of text messages that could accompany a treatment group.<sup>2</sup> From a texting standpoint, it is easier if you are using a structured, manualized treatment. If you can anticipate the content that will be delivered each week, you can design texts ahead of time to accompany this material. For instance, a treatment manual by Velasquez et al. (2016) covers topics like identifying high risk situations, mindfulness, managing cravings, and rewarding successes. Following these areas, texts might include:

- *Don't set yourself up! Look through your house and throw out any drugs or drug equipment.* (High-Risk Situations)
- *Meditate or pray. A clear mind is a happy mind.* (Mindfulness)
- *Wait it out! Most urges go down with time.* (Cravings)
- *Change can be hard! Give yourself a reward for doing well.* (Rewarding Success)

### Simple Reminders with Fixed Content

Figure 1 shows a simple, repeated message that is sent a few hours before a weekly treatment group. The message is short and bright. It uses an exclamation point to convey energy.

Once the schedule and messages are developed, clients text the keyword you provide (e.g., MONDAYGROUP) to the phone number provided by the texting service. In this example, clients would receive one text each week as a reminder to attend a treatment group.

**Tip:** If you are using compound or non-grammatically correct keywords, clients should make sure their phones do not autocorrect the words, for instance changing MONDAYGROUP into MONDAY GROUP.

<sup>2</sup>Two excellent treatment manuals that lend themselves to text messaging are Monti et al. (2002), *Treating Alcohol Dependence: A Coping Skills Training Guide*, and Velasquez et al. (2016), *Group Treatment for Substance Abuse: A Stages of Change Therapy Manual*.

Figure 1 ▶

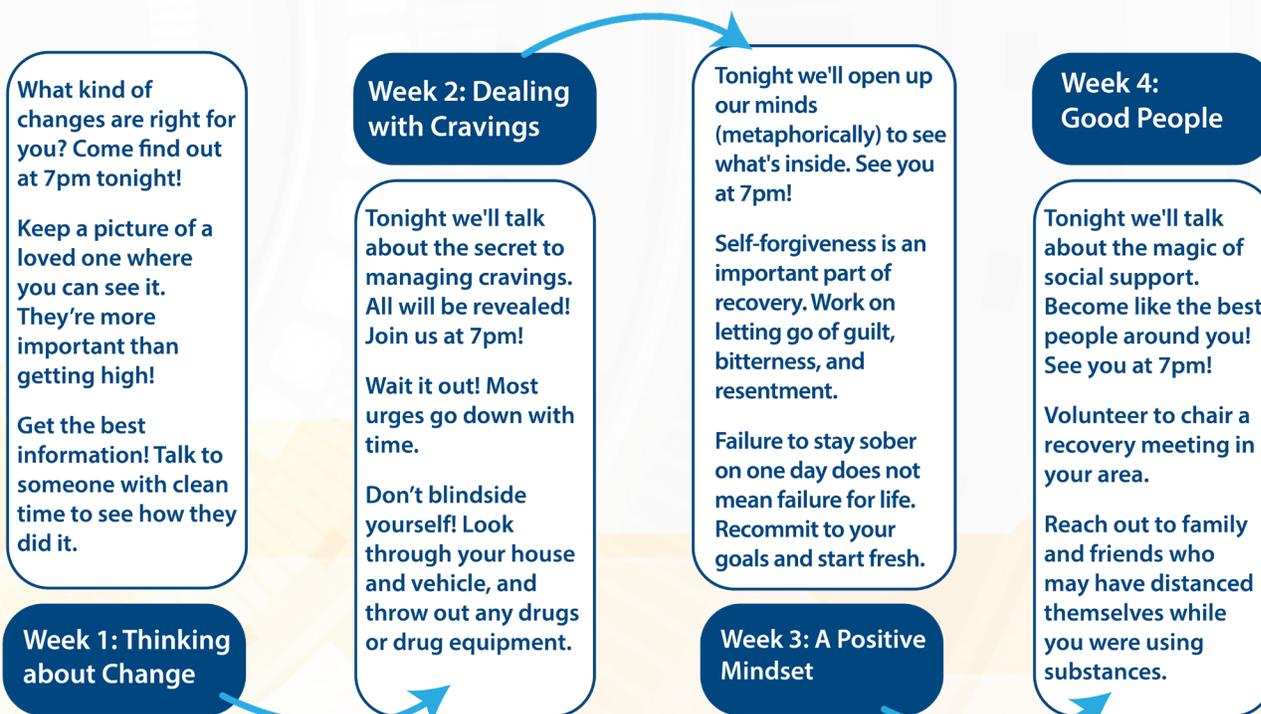


### Fixed Schedule, Changing Content

Figure 2 shows a fixed treatment schedule, where the text messages correspond to the group topics. Each week, the first text is sent a few hours before the treatment group. The text reminds people about the group and gives a short overview of what will be discussed. In this example, the first week addresses motivation, and thus the text messages focus on motivation. The text messages for the second (managing cravings), third (positive mindset) and fourth (social support) weeks correspond to the material that will be covered that week.

Again, once the schedule and texts are set, clients text a keyword you provide (e.g., MONDAYGROUP) to the phone number provided by the texting service.

Figure 2 ▶



## Tailored Tracks Using Keywords, On Demand

Figure 3 shows three tailored tracks, based on level of motivation (low, medium, high). Clients select the keyword that best represents their level of motivation. This keyword initiates a series of texts, perhaps one per day, that are tailored to that level of motivation. Each track is entered as a separate keyword. For instance, you might tell clients:

- *If you're wondering whether change is right for you, text keyword **THINK***
- *If you've decided to change and want tips to get started, text keyword **BEGIN***
- *If you've already made changes and want tips to help maintain these positive choices, text keyword **CHANGES***

Tailored tracks work well for different groups of people or when you want to emphasize different treatment themes.

A tailored track sequence could be used to prepare people for treatment, as an adjunct to treatment, or as aftercare. For instance, at the end of a group you might encourage clients to subscribe to one category of texts they think might be most helpful. Again, clients receive all texts that belong to a particular keyword group, and thus tailored tracks can easily be laid on top of other texting sequences.

Tailored tracks work well when you have groups of people who might benefit from different messages, or when there are different treatment concepts people might find helpful. The appendix gives examples of texts in different categories that could be used to create tailored tracks:

- Relationships/Social Support
- Avoidance/Triggers
- Cognitive Reappraisal
- Resources

Figure 3 ▶



## Key Points

This guide has provided a brief introduction to using text messages to improve substance use disorders treatment outcomes. Some of the material comes from published literature, while other material comes from our experience using text messages in research studies. We encourage you to think about the best way to use messaging systems in your specific setting. Clients may have suggestions, and new systems or strategies may come along that will improve on the strategies we have outlined. Some of the key points from this guide are:

- Texting is low cost and widely available. There is evidence from research studies that text messages can improve substance use disorders treatment outcomes.
- Text messages are easily received and (almost) universally viewed. They are a convenient way to remind people to attend treatment, to reinforce treatment concepts, and to help people achieve goals that were set during treatment.
- Technology is most helpful when it builds motivation, makes something easier to do, and reminds people to do something in real time.
- Set up a texting sequence that supports your treatment flow. Use a texting provider to send messages that support your treatment sequence.
- Send texts that are positively-framed, direct, personalized and sound like they are from a person.
- Make sure your messaging strategy is compatible with legal guidelines.
- Three different formats for texting sequences include: 1) repeating reminders with fixed messages, 2) repeating reminders with changing content, and 3) tailored tracks for different groups of people.

## Appreciative Stems

- *Great work tonight! You really know a lot about...*
- *Your...has really paid off!*
- *You have a lot of great ideas for...*
- *You're doing things right!*
- *That's wonderful. It really shows a lot of...*
- *You're really strong/brave/thoughtful/proactive.*
- *You're very committed to...*
- *You're working hard to...*
- *You're way ahead of...*

## Task Stems

- *Hi! A reminder to...*
- *Before group tonight, jot down a couple...*
- *Come prepared to say something about...*
- *Today, spend 5 minutes...*
- *Take a moment today to...*
- *Use today to think about...*

## Relationships/Social Support

- *Why reinvent sobriety? Talk to someone with clean time to see how they did it.*
- *Have a Plan B! Put a number in your phone of someone you could call if you needed to talk.*
- *Surround yourself with the best people! Get in touch with old friends who might help you stay clean.*
- *Go to an NA or AA meeting, or other support group.*
- *Attend a church or faith group.*
- *Keep in touch with your sponsor, or find another who will better serve your needs.*
- *Volunteer to chair a recovery meeting in your area.*

- *Distance yourself from family and friends who use substances.*
- *Reach out to family and friends who may have distanced themselves while you were using substances.*

### **Avoidance/Triggers**

- *Wait it out! Most urges go down with time.*
- *Go for a walk! Most urges are short lived.*
- *Stay busy! Volunteer, schedule social time with friends, or work on a project.*
- *Memorize sections of the big book or scripture.*
- *Meditate or pray. A clear mind is a happy mind.*
- *Don't set yourself up! Look through your house and vehicle, and throw out any drugs or drug equipment.*
- *Place matters! Avoid hanging out in places where you used to use substances.*
- *Change can be hard! Give yourself a reward for doing well.*

### **Cognitive Reappraisal**

- *Make a list of the ways that using has affected the people you care about most, like children, family, or friends.*
- *Think of the ways your life will be better when you're substance-free.*
- *Keep a picture of a loved one where you can see it. Spend just a moment each day thinking about the benefits of your sobriety for this person.*
- *Self-forgiveness is part of recovery. Let go of guilt, bitterness, and resentment.*
- *Failure to stay sober on one day does not mean failure for life. Recommit to your goals and start fresh.*
- *Change is hard! You should be proud of the progress you have made!*

## Resources

Check out SAMHSA's National HELPLINE for free, confidential, 24/7, 365-day-a-year treatment referral and information service for individuals and families facing mental and/or substance use disorders. Call 1-800-662-HELP or online at: [www.samhsa.gov/find-help/national-helpline](http://www.samhsa.gov/find-help/national-helpline)

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