Nearly 60% of substance abuse professionals see technology in the future treatment of their clients. So why aren’t they using more technology-based treatment tools now?
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RECOVERY 2.0

ADDITION IS A CHRONIC PROBLEM THAT REQUIRES ONGOING TREATMENT

Substance abuse is a nationwide health problem that continues to exert a considerable social and economic impact on society. In 2009, there were almost two million treatment admissions for substance abuse; 753 of every 100,000 Americans sought care (SAMHSA, 2011). Substance abuse treatment is complicated by the myriad medical, psychosocial, and psychiatric issues that accompany substance use and can impede recovery, and is more likely to be successful when these complications are addressed—e.g., when clients are matched to appropriate treatment services (Carise et al., 2005).

As the behavioral health community increasingly recognizes substance abuse as a chronic condition, the prevailing model for treatment is undergoing a shift, from acute and episodic care toward longer-term recovery management, with an emphasis on monitoring, case management, and continuity of contact (McLellan, 2002; White, 2008). Unfortunately, due to limited resources and the slow dissemination of new treatment protocols, in many places, “... treatment continues to be characterized as relatively self-encapsulated, serial episodes of acute treatment with post-discharge aftercare typically limited to passive referrals to self-help groups” (Dennis et al., 2003).

CLIENT ENGAGEMENT IS CRITICAL TO SUCCESS

There is substantial evidence that client participation and retention in substance abuse treatment lead to better outcomes. The number of treatment sessions a client attends is positively correlated with significant behavior change, as is staying in treatment for at least three months. Outcomes continue to improve with the length of treatment up to program completion, typically at 12 or 24 months (see review by Simpson, 2004). The link between length of treatment and positive outcome persists whether treatment was voluntary or involuntary (Miller et al., 2005).

Yet according to SAMHSA's most recent Treatment Episode Data Set (2008), 36% of substance abuse treatment admissions in outpatient settings completed treatment, and 44% of admissions across other modalities completed treatment. More than half did not.

The relationship between a client’s emotional investment and duration in treatment is complex. Clients leave treatment early due to perceptions that the treatment is not valuable or that their counselors are not helpful, and due to unmet ancillary needs, such as transportation (Fiorentine et al., 1999; Laudet et al., 2009). Outcomes and retention rates improve when therapists receive ongoing client feedback about the process and outcomes of therapy (e.g., Miller et al., 2006).
ONGOING MONITORING AND PERIODIC ASSESSMENT COULD IMPROVE OUTCOMES

Ongoing monitoring of client status can be used to measure progress, identify relapse risks, evaluate the therapeutic alliance, and enhance client treatment by making it more responsive to the client’s stage of recovery (Simpson, 2004). Aggregate data from patient populations can help treatment organizations identify program strengths and weaknesses, implement appropriate evidence-based practices, and develop and assess agency initiatives (Wisdom et al., 2008).

Unfortunately, assessment data typically is collected only at the beginning and end of treatment, often in response to accreditation and funding mandates (CSAT, 2006; McLellan et al., 2003). In the current environment, counselors lack the time and resources to perform or interpret repeated assessments (Brown et al., 1999).

TECHNOLOGY OFFERS A POTENTIAL SOLUTION TO TREATMENT CHALLENGES

Although technology is well-integrated in the treatment of various medical and psychiatric conditions, its adoption in substance abuse treatment has been uneven (Johnson et al., 2011; Hogue, 2010). But technology offers at least partial solutions to many of the challenges that are most pressing for substance abuse treatment providers.

In its effort to improve the quality of substance abuse treatment, NIATx (formerly the Network for the Improvement of Addiction Treatment) has identified four process-improvement aims: Reduce waiting time between first request for service and first treatment session; reduce no-shows by reducing the number of patients who do not keep an appointment; increase admissions to treatment; and increase continuation from the first through the fourth treatment session (NIATx, 2012). All four aims relate to client engagement, and technology can clearly support all four.

Promising innovations with applications in substance abuse treatment include online cognitive-behavioral therapy-based courses, social media for support and communication, telephone-based interventions, personalized feedback reports, and concurrent recovery monitoring (Bickel et al., 2011; Cucciare et al., 2009; Johnson et al., 2011).
Results

To better understand the current challenges facing substance abuse treatment providers, and examine the ways technology might be used to address these issues now and in the future, Inflexxion distributed the *Recovery 2.0* survey in partnership with Vendome Group, publisher of *Addiction Professional*. This publication is the primary clinical magazine for the addiction treatment and prevention field, and is distributed via print and email to 18,000 treatment professionals. The final sample consisted of 709 professionals representing substance abuse and behavioral health programs based in stand-alone treatment facilities, hospitals, and community mental health centers. Further details about our survey methodology can be found in Appendix A. The survey is included as Appendix B, and details of the survey sample appear in Appendix C.
SECTION 1: SUBSTANCE ABUSE TREATMENT DELIVERY CHALLENGES

Client Engagement Is the Most Pressing Treatment Delivery Challenge

*We asked behavioral health professionals what issues were high priorities for them.*

For more than half the survey respondents, getting clients to initiate treatment in outpatient or aftercare programs was a very important (27%) or top (28%) priority. (Predictably, lack of funding for outpatient and aftercare treatment was the top priority for 48%, and very important for another 18%.) Other client retention and continuity issues that behavioral health professionals ranked as very important or top priorities included: making sure clients do not slip through the cracks after referrals (49%); preventing drop-outs (44%); and monitoring clients between visits (42%). Not enough staff (44%) and large caseloads (45%) were also identified as significant issues by a large proportion of respondents.

![Figure 1: Major Problems in Treatment Delivery (N=759)](image)

**Clients Don’t Engage When They Doubt the Need for Treatment, or its Value**

*We asked behavioral health professionals what factors are “most likely” to interfere with client engagement.*

Not surprisingly, 40% of those surveyed said relapse was most likely to interfere with their clients’ treatment engagement. Nearly as many (39%) cited client payment issues as a barrier. Thirty-seven percent said clients who don’t engage with treatment deny having a substance abuse problem, and
35% cited other client doubts about the value of treatment, or of specific program features, as the primary factors when clients fail to engage. Respondents also identified resource limitations (such as the need for childcare or transportation) and co-occurring disorders as impediments to client engagement.

![Figure 2: Top Reasons for Lack of Client Engagement (N=749)](image)

**SECTION 2: SUBSTANCE ABUSE ASSESSMENT METHODS AND BARRIERS**

**Treatment Centers Continue To Rely On Clinician-Administered Assessments**

*We asked behavioral health professionals how they collect clinical data.*

A strong majority of the behavioral health professionals we surveyed rely on standardized screening and assessment tools—either paper-and-pencil (44%) or computer-based (42%)—that they administer as part of their client intake interviews. Larger treatment facilities were more likely to use computer-based assessments (*p*<.05, two-tailed). Although a number of client self-administered assessment tools have demonstrated efficacy in clinical practice, only 28% of respondents reported using them. An even smaller proportion (6%) reported using *computer-based* self-administered assessments.

![Figure 3: Methods of Assessment Administration (N=841)](image)
Few Facilities Use Offsite Screening or Assessment

We asked behavioral health professionals about their use of offsite, self-administered assessments.

Although 6% of respondents use client self-administered assessments, only 18% of those allow clients to complete them prior to coming in to the treatment facility. Surprisingly, the reason cited most (38%) was simply that the option had not been considered.

There were some more substantive barriers to using offsite client self-administered assessments. Thirty-five percent of respondents said clients would not remember to complete the assessment, and 30% were concerned that clients would have someone else complete it. A number of respondents in correctional and court settings reported that they are required to observe the client completing the assessment, which rules out offsite administration.

Computer-based offsite assessments face additional barriers. More than one-fourth of respondents cited concerns that clients lack access to the Internet (27%); privacy and confidentiality issues in transmitting health information electronically were also a concern for 27%.

![Figure 4: Reasons for Not Using Offsite Assessments (N=176)](image)

We asked behavioral health professionals to comment on the barriers to using offsite, self-administered assessments.

It appears that resistance to changing assessment practices centers around four factors – concern that clients may be unreliable or have limited access to the Internet and other technology; privacy and confidentiality issues; restrictions due to setting; and the effort involved in changing existing processes.
The survey provided space for respondents to provide more detail on why they don’t use offsite, client self-administered assessments. Below are some of their responses.

**Clients may be unreliable**
- Possibility of having test completed by non-client.
- Ability of customization for intake appears as if it would be difficult even when using standardized screening tools.
- All info relies on client report which may/may not be accurate.
- The clients will call in and do a pre-screen with us over the phone and the only thing with that they tend not to tell us everything upfront.
- Paperwork is lost or forgotten.

**Clients may have limited access to the Internet and other technology**
- This type of system would be great for a range of reasons. However given percentage of homeless, and lower socio-economic stressors, it is unclear what percentage of our population would be able to use such tools.
- Some, not all, clients do not have adequate access to necessary technology.

**Restrictions due to setting**
- Clients are residential.
- The instrument we use needs to be presented by someone trained.
- This is a Court program and requires that tests are observed being taken to ensure identity.
- We engage offenders while still incarcerated; some of these individuals will report whatever is necessary to be a part of our program. However, the information may not be correct or can’t be confirmed.
- We are an inpatient facility; most patients are admitted through our Psych Crisis Center.
- Referrals are immediate and unknown to us prior to admission. No time to send info prior.

**Process and logistical issues**
- Amount of time, effort, and policy to implement.
- Feedback from clients preferring a face-to-face interaction during the assessment process.
- Can be a barrier to timely treatment, difficult for some folks to complete on their own.
- The downside is that if the client does not come for the intake but has done the screening tool, I have to pay.
• Use the Relapse Risk Inventory and Driver Risk Inventory. Both are copyright and the owner does not allow the instruments to be distributed outside the office.

• A turn-off due to length of assessment.

Self-Administered Assessments Are Most Common At Intake and Screening
A very small portion of survey respondents (N=34) reported using screeners or assessments that clients complete before coming in to the treatment facility. Among facilities that do, the most common uses are intake or initial screening (65% for each). Only 12% use offsite self-administered scales for ongoing assessments during treatment or at discharge; 21% use them for follow-up or outcome measurement. Overall, the use of this kind of assessment in continuous monitoring is rare.

![Figure 5: Types of Tools Completed By Client Prior To Arriving At Treatment Setting (N=34)](image)

Advantages of Client Self-Administered Tools
We asked respondents to comment on the benefits of offsite, self-administered assessments.

Survey respondents whose clients fill out screening and assessment forms before coming in to the treatment facility reported having significantly more face-time with clients for interaction and evaluation. Their intake process was also shorter and more efficient. Several respondents cited other advantages.

• Saves time on-site, screens out those that are not really invested (they have to fill out intake paperwork before an intake is scheduled).

• Benefits of intake paperwork, and screening paperwork, we can get copies from probation, and the client can redo paperwork if they forget to bring it for intake.

• If a client for health reason or that they are incarcerated we will take forms to them.

• Having the screening done off-site saves time during the intake session and gives me an idea of the client's situation before I meet with them.
• Clients can complete online and streamline the intake process.
• Some cannot get to first appointment in time to do intake paperwork so no time is lost in session doing the paperwork that can be done outside of appointment. Some patients need to check other sources for information requested.
• To help process of admission into our facility and what kind of program they qualify for.
• This saves time for face-to-face interaction between clinician and client, and also allows the incoming client to fill out necessary paperwork without feeling pressured.

**Monitoring Recovery between Sessions Is Of Significant Clinical Value**

*We asked what information would be most useful to receive from clients between visits.*

Although few substance abuse treatment programs have formal mechanisms in place to collect clinical data from clients outside the facility, behavioral health professionals consistently affirm the value of between-visit status reports from clients. When asked what information would provide the most useful indicators of progress or risk for substance abuse clients, respondents cited interpersonal interactions, management of triggers and urges, daily activities, and environmental changes. Some more detailed comments are below.

• Who have they hung out with, where have they been, have they called sober support, been to a meeting, used relapse prevention tools. If so, what?
• Whether they have relapsed or are thinking about using before actually relapsing. Whether they have attended community support meetings.
• Whether there is continued employment or gainful activity. What positive skills and recovery supports they are using and how they are using them. How their relationships are going. How they are managing difficult situations.
• Where they went with whom, and what kind of triggers and/or positive experiences they had.
• What’s going well, what's not going well, how can we be helpful to you?
• What were their activities?
• What they have done with their leisure time, any issues with triggers or urges, and any issues that have caused them stress.
• What they have done and who they have seen. Top issue of the day.
• What they encountered, how they reacted, and how they felt about the situation (during and after a time of reflection when it was over).
• What skills they are practicing between visits that are keeping them clean and sober.
- What is triggering cravings? What feelings can't they sit with?
- What are the changes in their lives between visits?

The following computer-generated “word cloud” illustrates the terms used most often in the free-form responses. The size of the words in the cloud indicates the frequency with which it was mentioned; words shown in larger type were mentioned more often. Relapse indicators are clearly a widely-shared concern, while the prominence of the word “daily” indicates that many respondents feel daily monitoring is important to recovery.

Figure 6: Word Cloud: Most Useful Client Status Indicators (N=309)
SECTION 3: CURRENT AND FUTURE TECHNOLOGY USE IN SUBSTANCE ABUSE TREATMENT

Email and Online Educational Materials Are the Current Choices

We asked what technology-based tools behavioral health professionals currently use.

Only half of the survey respondents use technology-based communication systems or services with clients. Within that group, 22% communicate with clients by email, and 21% have clients access educational materials online (significant difference at 95% confidence interval, 2-tailed). About one in eight reported exchanging text messages with clients, which suggests that this could be a viable platform for mobile monitoring applications. Online assessment and direct clinical interventions are rarely used.

Figure 7: Current Treatment Center Use of Technology (N=707)
Strong Expectations for an Increased Role of Technology in Treatment

We asked which technology-based tools behavioral health professionals believe will be used substance abuse treatment in the future.

A strong majority of the professionals we surveyed say that technology will play a substantial, integrative role in substance abuse treatment in the future. Respondents foresee using online educational materials (74%), email communication (61%), online support groups (63%), online assessments (63%), and online recovery courses (65%) as likely potential adjuncts to face-to-face therapy. Between 40% and 49% of respondents also predict that social networking, mobile monitoring, text messaging, tablet computers, and online counseling are likely to be used in the future.

Figure 8: Expected Treatment Center Use of Technology (N=672)
Concern about Clients’ Access to Technology

*We asked what factors impede the use of technology in substance abuse treatment.*

Fewer than one in five (17%) respondents said organizational resistance was a barrier to adopting technology in clinical practice, and only 10% were satisfied with their current use of technology. Instead, respondents characterized the relatively low use of technology in substance abuse treatment as the product of practical issues. The majority (70%) cited clients’ limited access to technology as the main barrier to using online recovery tools or mobile applications.

![Figure 9: Technology Use Barriers (N=688)](image-url)
TAKEAWAYS

CLIENT ENGAGEMENT IS THE MAJOR SERVICE CHALLENGE

Funding continues to be a major challenge for behavioral health organizations. But the problems that result when clients are not engaged in their own treatment—from difficulty initiating treatment, to relapses while in treatment, to leaving treatment prematurely—exacerbate the strains of limited staffing resources and large caseloads. Efforts to establish and maintain good client engagement are hampered by systems and infrastructure that make it difficult to monitor clients during treatment and to track them across the referral process.

Assessments that are computer-based and/or that clients self-administer allow clinicians to spend more time in treatment planning and counseling, while providing them with comprehensive client data and in many cases shortening the overall intake process.

For example, a New England family services agency that adopted a self-administered computer-based multimedia assessment tool was able to combine the intake and assessment processes into a single step and shorten the interval between first contact and treatment for adolescent clients.

Research also shows that clients can be more forthcoming on a self-administered assessment (Butler et al., 2009). A 20-site behavioral treatment organization in the Midwest has found that clients are more comfortable and provide more complete information now that the intake assessment involves a computer-based, self-administered tool.

Takeaway: Studies indicate that client engagement can be enhanced by conducting ongoing assessment and monitoring.

CURRENT ASSESSMENT AND RECOVERY-MONITORING PRACTICES ARE INADEQUATE

Behavioral health professionals rely on standardized screenings and assessments administered during the intake interview. But only one in five is satisfied with the assessment procedures they currently use. Although computer-based assessment tools have demonstrated their efficacy as part of evidence-based practice, less than one in ten respondents reported using such tools. Less than one in five allows clients to complete any self-administered assessment tool offsite.

Issues that limit the use of computer-based and offsite client assessments include concerns about client privacy and the validity of self-reported information; some settings, such as correctional facilities, are required to observe clients as they complete assessments. Despite a limited use of offsite
assessment, behavioral health professionals recognize the value of monitoring client status between sessions, and would like better tools for assessing client relapse potential, social support, stressors, and other activities. At present there is little infrastructure available to collect this data.

At a Boston-area residential substance abuse recovery program for adult men, clients self-administer a computerized assessment that helps counselors integrate the clients’ medical and other needs in their treatment plans from the outset. The software tabulates severity ratings and composite scores for seven problem areas (medical, employment, alcohol, drug, legal, family/social, and psychiatric) and generates a treatment-planning report that summarizes the relevant data. Having this information early in treatment planning allows counselors to clients to the appropriate services right away, improving clients’ chances for successful treatment.

**Takeaway:** Currently available computer-based self-administered assessment tools can achieve valid results while preserving client privacy and confidentiality.

**TECHNOLOGY IS THE FUTURE**

Technology offers the potential to streamline the assessment process and enhance client engagement. Already, about half the survey respondents reported using email to communicate with clients and/or referring clients to online educational materials during the course of treatment. The majority of behavioral health professionals surveyed said that technology will play a substantial, integrative role in future substance abuse treatment, particularly in terms of increased use of online education materials, email communication, online support groups, online assessments, and online recovery courses. However, there are widely-held concerns that behavioral health facilities do not have the staffing or expertise to manage technology resources, and clients continue to lack regular access to computers and the Internet.

Solutions in use today include community-based computer access, as found in public libraries, schools, and employment centers. Steps can be taken to protect client confidentiality during an offsite computerized assessment, including using secure Internet connections, running up-to-date virus and malware protection, clearing cache, and closing the browser when the assessment is complete. Online assessment tools that are maintained and updated by their vendor can relieve much of the burden of managing technology.

**Takeaway:** There is widespread agreement that technology belongs in behavioral health treatment. Existing tools that are easy for clients to use and require little staff maintenance are in use today and more are being developed.
References


Appendix A: Methodology
SURVEY DEVELOPMENT AND ADMINISTRATION

Survey Goals
Better understand the current challenges facing substance abuse treatment providers, and examine the ways technology might be used to address them now and in the future.

Survey Distribution
Inflexxion distributed the Recovery 2.0 survey in partnership with Vendome Group, publisher of Addiction Professional. This publication is the primary clinical magazine for the addiction treatment and prevention field, and is distributed via print and email to 18,000 treatment professionals.

From this list of subscribers, we selected 1,000 addiction professionals at random and invited them to participate anonymously in the 15-minute Recovery 2.0 survey. We provided an incentive in the form of an opt-in drawing for a $50 online gift card, with a one-in-fifteen chance of winning. The final sample consisted of 709 individuals who completed at least 80% of the 15-minute survey. These professionals represent substance abuse and behavioral health programs based in stand-alone treatment facilities, hospitals, and community mental health centers. The findings are estimated +/- 4% accurate at the 95% confidence level.

Statistical Analysis
Analyses included basic descriptive statistics (i.e., frequencies, means, standard deviations, range, confidence intervals, etc.). When comparisons were made between groups, appropriate tests of significance were conducted depending on the type of data. Significance was set at α=.05 for all tests. Analyses were carried out using IBM SPSS Statistics 19.
Appendix B: Survey Questionnaire

1. In which state are you located? *(Please select ONE best answer)*

2. What best describes your work setting? *(Please select ONE best answer)*
   - Addiction Treatment Center/Program
   - Behavioral Health Center/Program
   - Community Mental Health Center
   - Government Agency
   - Private Practice
   - Hospital—Medical setting
   - Hospital—Behavioral Health setting
   - Adult Criminal Justice /Juvenile Justice
   - Social Service or Welfare Agency
   - Managed Care Organization
   - Other, please specify:

3. What is your job description? *(Please select all that apply)*
   - Addiction Therapist
   - Administrator
   - Assessor
   - Case Manager
   - Clinical Counselor
   - Counselor
   - Executive
   - Mental Health Therapist
   - Nurse
   - Pastoral Counselor
   - Physician
   - Psychologist
   - Social Worker
   - Other, please specify:

4. How many clients/patients does your facility serve ON AVERAGE per WEEK? *(Please select ONE*
5. What is the breakdown of the population that you serve? Please indicate the percentage—ON AVERAGE—of adults and adolescents that make up your population, with the total amount adding to 100%.
   - % Adult
   - % Adolescent

6. What setting do the clients/patients that you serve largely reside in? (Please select all that apply)
   - RURAL areas with LIMITED ACCESS to transportation to your facility
   - RURAL areas with SUFFICIENT ACCESS to transportation to your facility
   - SUBURBAN areas with LIMITED ACCESS to transportation to your facility
   - SUBURBAN areas with SUFFICIENT ACCESS to transportation to your facility
   - URBAN areas with LIMITED ACCESS to transportation to your facility
   - URBAN areas with SUFFICIENT ACCESS to transportation to your facility

COMMENTS:

7. Does your facility use a STANDARDIZED assessment tool with your clients/patients? (Please select all that apply)
   - Paper-and-pencil administered by intake professional
   - Computer based administered by intake professional
   - Paper-and-pencil self-administered by client
   - Computer based self-administered by client
   - NO ASSESSMENT TOOL USED

8. Do your clients have the option of self-administering assessments OFFSITE, prior to coming in? (Please select ONE best answer)

   [ONLY SHOWN QUESTION IF SELF-ADMISTERED OPTION SELECTED IN #7]
   - Yes
   - No
9. What are the primary reasons why you do not provide self-administered assessments to clients/patients prior to coming in? *(Please select all that apply)*

[OPTIONS RANDOMIZED; ONLY SHOWN QUESTION IF SELF-ADMINISTERED NOT SELECTED IN #7]

- Privacy/Confidentiality issues
- Cannot rely on clients/patients to complete assessments in uncontrolled environment
- Cannot rely on clients/patients to remember to complete assessments prior to arrival
- Clients/Patients do not have adequate access to necessary technology
- Our facility does not have the necessary technology to implement a process like this
- Our current process works fine so no need to change
- Simply has not been considered to date
- Other please specify:

10. At what treatment stages do you have clients/patients self-administer tools OFFSITE prior to coming in? *(Please select all that apply)*

[ONLY SHOWN QUESTION IF ANSWERED YES TO #8]

- Screening
- Intake
- During treatment plan
- Follow-up / Outcome
- Discharge

11. Please, briefly describe the benefits and drawbacks, for your particular organization, of having clients self-administer assessments OFFSITE:

[ONLY SHOWN QUESTION IF ANSWERED YES TO #8]

12. What services does your facility/organization provide? *(Please select all that apply)*

- Inpatient
- Residential
- Outpatient, non-Methadone
- Intensive Outpatient
- Methadone
- Case Management
- Screening / Assessment ONLY
- Recovery Monitoring
• Criminal Justice (Probation, Parole, Drug Court, DUI, DWI, OUI, etc.)
• Prevention / Education
• Other, please specify:

13. In your opinion, how well do you think staff has implemented EVIDENCE-BASED PRACTICES in your facility/organization?

• Extensively
• Considerably
• Somewhat
• A little
• Not at all
• NOT APPLICABLE

14. In your opinion, WHAT ARE THE BIGGEST ISSUES when serving clients/patients in outpatient or aftercare programs? *(Please select one best answer for each)* [OPTIONS RANDOMIZED]

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<th>Not a major issue</th>
<th>An important issues, but not critical at this time</th>
<th>Very important issue, but not a high priority</th>
<th>Critical issue and top priority</th>
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• Large caseloads
• Overall high drop-outs
• Getting clients to initiate treatment
• Long waiting list
• Clients falling through the cracks after referral
• Not enough staff
• High staff turn-over
• Lack of professional development and training among staff
• Monitoring clients/patients between treatment visits
• Difficulties locating clients/patients
• Language barriers
• Cultural disparities
• Incomplete or otherwise inadequate access to client/patient’s medical/substance abuse history
• Lack of funding for treatment

15. Of the issues you identified as critical and a priority, which ONE—IF SOLVED—would most dramatically improve overall treatment processes? *(Please choose ONE best answer)*
16. **In your opinion**, what are the primary reasons why patients/clients fail to become engaged in treatment? *(Please select one best answer for each)* [OPTIONS RANDOMIZED]

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<th>Never the reason</th>
<th>Seldom the reason</th>
<th>Sometimes the reason</th>
<th>Often the reason</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lack of transportation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Client perceives a wrong fit with the counselor</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Client perceives a wrong fit with the program (e.g., approach, schedule, expectations, etc.)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Client perceives a wrong fit with the population “I am not like the people here”</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Client does not believe s/he has a substance abuse problem</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Client has complicated mental health issues</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Client has tried treatment before and doesn’t believe it will work</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lack of support (e.g., childcare problems, family problems, etc.)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lack of insurance or money</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>They relapse</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

17. When you need to refer a client/patient, how available are the following services in your community? *(Please select one best answer for each)*

<table>
<thead>
<tr>
<th>Very seldom</th>
<th>Hardly ever</th>
<th>Some of the time</th>
<th>Most of the time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Addiction Treatment Center/Program</td>
<td>Behavioral Health Center/Program</td>
<td>Community Mental Health Center</td>
<td>Vocational Training</td>
</tr>
<tr>
<td>Private Practice—Psychiatry</td>
<td>Private Practice—Counseling</td>
<td>Hospital—Medical setting</td>
<td>Hospital—Behavioral Health setting</td>
</tr>
<tr>
<td>Social Service or Welfare Agency</td>
<td>Housing Assistance</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

18. In your opinion, what are the most difficult referrals to fulfill, where the actual process of referral is time-consuming, requires more effort, includes additional steps, etc.? *(Please select one best answer for each)*

<table>
<thead>
<tr>
<th>Serious challenge</th>
<th>Moderate challenge</th>
<th>Minor challenge</th>
<th>Not difficult at all</th>
</tr>
</thead>
<tbody>
<tr>
<td>Addiction Treatment Center/Program</td>
<td>Behavioral Health Center/Program</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
19. What outpatient or post-treatment services do you PROVIDE or RECOMMEND? (Please select all that apply)

- Screening/Assessment
- In person 1-on-1 counseling sessions
- In person group sessions
- In person education groups
- Paper-based writing assignments and/or log entries
- Urine testing
- Support groups, i.e., AA, NA, etc.
- Medication Assisted Treatment (MAT)
- Case management
- Other, please specify:

20. Do you currently use any of the following technology-based services with your clients/patients? (Please select all that apply)

[OPTIONS RANDOMIZED; IF NOTHING WAS SELECTED, SKIPPED TO #24]

- Social networking
- Mobile monitoring of client status
- Online assessment
- e-learning (online recovery courses)
- Text messaging
- Use of tablets with clients/patients
- Online counseling
- Online educational materials
• Emailing clients/patients
• Online mutual support meetings (AA, NA, etc.)
• None of the above
• Other, please specify:

21. Where are online programs being used by your clients? *(Please select all that apply)*

• They are available within our facility on designated computers
• They are available online, but require password login
• They are available online and are open to the public
• They are designed specifically as mobile applications for clients to access through their cell phones
• Other, please specify:

22. Are you considering using and/or recommending online tools for your patients to access OFFSITE? *(Please select ONE best answer)*

[ONLY SHOWN QUESTION IF COMPUTERS IN FACILITY WAS THE ONLY CHOICE SELECTED IN #21]

• Yes
• No
• I don’t know

23. What types of support do you usually use when patients/clients report having technical problems with online tools? *(Please select ONE best answer)* [OPTIONS RANDOMIZED]

• We haven’t experienced any problems to date
• We have the expertise to solve the problem in-house
• We work with a 3rd party that has technical expertise BUT we relay the solution back to our clients/patients.
• We have patients/clients call and interact directly with a 3rd party that has technical expertise
• We do not have the resources to support the technical problems that our clients encounter when using online tools
• Other, please specify:

24. Consider each of the following technology-based services. How likely do you think each WILL BE USED IN THE FUTURE with clients/patients in patients? *(Please select one best answer for each)* [OPTIONS RANDOMIZED]

<table>
<thead>
<tr>
<th>Definitely NOT likely</th>
<th>Probably NOT likely</th>
<th>Probably LIKELY</th>
<th>Definitely LIKELY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social networking</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
- Mobile monitoring of client status
- Online assessment
- e-learning (online recovery courses)
- Text messaging
- Use of tablets with clients/patients
- Online counseling
- Online educational materials
- Emailing clients/patients
- Online mutual support meetings (AA, NA, etc.)

25. Are there other technology-based services that you think are likely to be used in the future with clients/patients?

26. What are biggest barriers to having your clients/patients use web-based recovery tools or mobile applications? *(Please select all that apply)* [OPTIONS RANDOMIZED]

- Lack of quality online tool that would meet our clients’ needs
- Privacy/Confidentiality issues
- Clients do not have adequate access to necessary technology
- Our facility does not have the necessary technology to incorporate online programs
- We do not have the expertise to manage and maintain programs used remotely, outside of our facility
- Our current process works fine, so no need to change
- There is significant resistance to technology solutions within my organization
- Online services not as effective as in-person services
- Liability issues related with inability to physically assess state of client/patient
- Lack of reimbursement
- We don’t extensively know what programs/tools are available and effective
- Limited technology knowledge among staff
- Difficult to monitor clients
- I don’t know, I haven’t really thought about it
- Other, please specify:

COMMENTS:

27. How frequently have you visited the following websites? [PROGRAMS RANDOMIZED]
Never   Seldom   Sometimes   Often
- Faces & Voices of Recovery
- Sober 24
- Alcoholscreening.org
- Drugscreening.org
- Rethinking Drinking
- NIDAMed—Resources for medical and health professionals
- SAMHSA Sponsored Buprenorphine Physician Clinical Support System
- SMART Recovery®
- AA.org
- NA.org
- The Addiction Project—by HBO
- eGetgoing

COMMENTS:
"With a grant from the National Institute of Health (NIH), we are working on developing an online relapse prevention program. The next few screens are example screenshots, meant to give you an idea of what we are working on. After viewing the screens, there are a few remaining questions—your opinions and feedback will shape our efforts moving forward."

28. How likely is it that you would use an ONLINE recovery management program like this with your clients/patients? *(Please select ONE best answer)*
- Very unlikely
- Somewhat unlikely
- Pretty likely
- Very likely

COMMENTS:

29. In your opinion, how likely is that an online recovery management/ behavioral health course—similar to the one you just previewed—could effectively supplement to face-to-face treatment? *(Please select ONE best answer)*
- Definitely won’t be significantly effective
- Probably won’t be significantly effective
- Probably will be significantly effective
- Definitely will be significantly effective
30. BASED ON YOUR EXPERIENCES, what would be the most useful information that clients/patients could provide about their condition BETWEEN VISITS that would help you monitor their status / manage them?

31. When considering this type of program, which of the following is the BEST and MOST APPROPRIATE method of solving technical issues? (Please select ONE best answer)

- Our facility should work with the vendor directly - relaying the solution back to our clients/patients
- Clients/patients should interact directly with the vendor for technical assistance
- We have in-house technical expertise to solve issues
- I don't know
- Other, please specify:

32. In your opinion, what is the likelihood of a program like this qualifying as clinician hours eligible for reimbursement? (Please select ONE best answer)

- Very unlikely
- Somewhat unlikely
- Pretty likely
- Very likely

COMMENTS:
Appendix C: Study Sample

Our survey respondents work in a variety of settings, including addiction and behavioral health treatment facilities, community mental health centers, hospitals, private practice, criminal justice, social services, and managed care organizations.

Figure 10: Work Settings Represented by Respondents (N=900)

*Other includes: Consultant, Drug Court, Employee Assistance Program, Foster Care, Peer Recovery, Community Organization, Recovery Support Services, Single County Authority, Training Facility, Tribal Behavioral Health Clinic, University

When asked about their professional role, nearly half the respondents identified themselves as counselors. They were free to enter more than one response.

Figure 11: Professional Roles of Respondents (N=742)
Respondents indicated that their clients’ homes are relatively evenly distributed among urban settings (40%), suburban settings (31%) and rural settings (30%). The majority of respondents’ clients have adequate transportation to treatment (64%), but about one-third deal with inadequate access to transportation.

![Bar chart showing home setting and percentage of sufficient access and limited access](image)

**Figure 12: Clients’ Home Setting (N=849)**

When asked to estimate the percentage of adolescents compared to adults in the population of clients that their treatment setting served, 44% of respondents serve mainly adults (95% or more of clients), while only 5% of respondents serve mainly adolescents.

<table>
<thead>
<tr>
<th></th>
<th>Adolescents</th>
<th>Adults</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>442</td>
<td>805</td>
</tr>
<tr>
<td>Mean</td>
<td>34.77</td>
<td>86.37</td>
</tr>
<tr>
<td>Median</td>
<td>25.00</td>
<td>100.00</td>
</tr>
<tr>
<td>Mode</td>
<td>10</td>
<td>100</td>
</tr>
</tbody>
</table>

**Figure 13: Breakdown of Client Population**