How Individuals Seeking Help for Substance Use Disorder Adjusted to Virtual 12-Step Meetings During the COVID-19 Pandemic

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Abstract

Technology-based online support services are emerging as a resource for people recovering from substance abuse. This study presents findings on how individuals seeking help for a substance use disorder through 12-step fellowship meetings (Alcoholics Anonymous, Narcotics Anonymous) adjusted to virtual rather than in-person meetings during the COVID-19 pandemic. Fifty individuals (50) were interviewed, recruited primarily from 12-step meetings in 3 locations in a rural New England state in the United States. Subjects were asked about whether they had attended virtual meetings during the pandemic, how online meetings compare to in-person meetings, and if they encountered any obstacles when attending virtual meetings (eg, Internet connectivity). More individuals preferred in-person meetings for a variety of reasons, although many participants were willing to give virtual meetings a try. Some participants continued to attend virtual meetings, even after in-person meetings returned. Positives of virtual recovery meetings included convenience and the fact that they could be accessed from anywhere. Internet connectivity and technical difficulties presented a challenge for some. Some individuals were unable to focus in virtual meetings and got easily distracted. Digital recovery support services should continue to be offered as some recovering individuals find them helpful. Virtual meetings are a resource, particularly for those individuals living in rural areas without many in-person resources readily available, or access to adequate transportation. Treatment providers working in rural states may consider advocating to policymakers for quality Internet services (eg, high-speed broadband access), to sufficiently meet residents' treatment and other healthcare needs.

Keywords

COVID-19, substance use disorder, virtual, recovery, meetings

Introduction

This research addresses an area about which not enough is presently known—how individuals seeking help for a substance use disorder through 12-step fellowship meetings (eg, Alcoholics Anonymous, Narcotics Anonymous) adjusted to virtual rather than in-person meetings during the COVID-19 pandemic. Both in-person support[1] and virtual-only support[2-4] are relevant beyond 12-step recovery programs and play a role in other recovery and health programs[3,5,6] as well. Technology-based online support services such as online recovery forums and smart phone apps are emerging as a resource for people recovering from substance use disorder. However, evidence is lacking[3] as to whether online recovery peer support is an adequate replacement for in-person peer support. This study aims to shed light on this question. The COVID-19 era provided a natural experiment to examine the role that virtual social support plays in recovery and healing.

This study also examines substance use recovery and healthcare in a rural setting as two-third of the study state's residents (fewer than 700 000 people) reside in rural communities.[7] Individuals recovering from substance use disorders in rural areas face unique challenges[1,5,6] including limited substance use recovery counselors and peer support available in rural locations.[2] This study expands on work published[8] recently in *Inquiry* that found that telehealth was useful in particular for individuals facing transportation

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obstacles. The present article is one of a series of papers published stemming from a study conducted by the author[9,10] about substance use disorder recovery during the COVID-19 pandemic. The method to be discussed is the same method as was used in the author's other work, although the focus of the other articles is different.

Substance Use Disorder and Recovery During the COVID-19 Pandemic

The COVID-19 pandemic transformed all areas of life. Activities that would normally be undertaken indoors (eg, work) shifted to either online participation, or in-person but masked-up, socially distant events. This includes attendance at substance use recovery meetings such as 12-step fellowships like Narcotics Anonymous and Alcoholics Anonymous. Individuals with a substance use disorder (SUD) faced risks of contracting severe COVID-19 as compared to non-users.[11] Because COVID-19 is a respiratory illness, individuals with SUD who smoke (cigarettes, marijuana) may have been particularly susceptible to infection.[12] Because of strains on the U.S. healthcare system stemming from COVID treatment, individuals recovering from substance use who contracted COVID-19 experienced obstacles to getting treatment.[13-15]

Recovering individuals face challenges presented by social distancing measures,[12] including relapse with substances which has been documented[15] during the COVID-19 period. Economic and social shifts caused by COVID-19 adversely impacted access to treatment for substance using individuals, worsening their addictions.[16-18] International research[19,20] has documented increases in depression and anxiety among SUD recovering people, and substitution of one substance for another, during COVID-19.

Digital Recovery Support Services

Even before the COVID-19 pandemic, digital recovery support services (D-RSS) have helped individuals with substance use disorders begin and maintain their recovery.[3] COVID-19 necessitated an expansion of those services, as well as an opportunity to examine their effectiveness. Downsides of remote connections include weakened ability to detect others' social cues[21] such as being in emotional distress, and a lack of in-person connection.[18]

D-RSS take various forms, and can be delivered through computers (laptop, desktop), tablets, or smartphones (eg, downloadable recovery apps).[3] They can function as either assists to a broader, in-person recovery program, or as stand-alone interventions.[22] Research on the effectiveness of digital recovery mechanisms has shown mixed results,[23-31] although research in this area is still preliminary.[32] A meta-analysis[33] of Internet and computer-based interventions for marijuana use determined that electronic interventions showed some effectiveness in reducing short-term cannabis use, with the caveat that the results were based on a modest

number of studies with diverse samples. Another meta-analysis[34] and a comprehensive review of digital interventions[35] found some evidence of effectiveness of D-RSS in lowering alcohol use. There are some advantages of D-RSS over the more traditional in-person programs, such as transportation not being an issue, and individuals not being limited by geographical proximity to a program.[3] D-RSS holds promise to help reach vulnerable or otherwise isolated individuals, such as people living in rural communities.[36] Forms of D-RSS will likely continue despite the return of in-person recovery services.

The Present Study

This study aimed to explore how individuals seeking help for a substance use disorder adjusted to virtual rather than in-person meetings as part of a 12-step recovery program. This study addresses gaps in the literature about how consumers of health services feel about the adequacy of virtual as opposed to in-person health support. This is an important contribution to the literature as D-RSS for health and medical services are likely to continue in the future, despite the pandemic having ended. Virtual health support services hold promise for populations residing in rural areas, where in-person services may be few and far between—so it is important to better understand how well they meet individuals' needs.

Method

Participants

The principal investigator (PI) interviewed 50 individuals recovering from a substance use disorder, recruited from different socio-economic communities in Vermont, a rural state in the New England region of the United States from August 2022 through December 2023. Two-third of the state's residents live in rural areas.[7] Vermont was selected as the state from which to sample because the PI teaches at a university in Vermont, and the funder of the study is based in Vermont and has a focus on health of the state's population. It should be noted that these are the same methods used in the author's other publications,[9,10] which stem from the same study but present different results on different research questions. The study followed the relevant EQUATOR guidelines.[37] A copy of the consolidated criteria for reporting qualitative research (COREQ) checklist for qualitative research was submitted to *INQUIRY*, along with the article.

Approval from the university's institutional review board (IRB) was obtained before any subject recruitment began, and informed consent was obtained from participants. To recruit participants, the PI visited and announced the study at 12-step meetings of the Narcotics Anonymous (NA) and Alcoholics Anonymous (AA) fellowships that were designated as open to the public. In other words, an attendee does

not need to be in recovery themselves to attend. The PI initially selected 12-step meetings in 3 locations from the northern and central parts of the state. Twelve-step meeting times and locations were obtained through 2 apps downloaded to the PI's phone. The PI also hung invitational signs in club houses, recovery centers, and church basements where 12-step meetings sometimes take place. At the end of interviews, the PI would also ask participants if they knew of any other recovering people who might be interested in being interviewed. Some participants attended in-person meetings in more populated areas but lived in rural towns, sometimes driving an hour or more to reach a recovery meeting. Subjects were offered a $20 Amazon gift card as an incentive to participate in the interview.

In qualitative research, saturation of insights and themes is obtained around the 24th interview.[38] To be included in the study, participants had to be actively participating in recovery from a substance use disorder, however they defined being in recovery. While total abstinence from substances was not a requirement (ie, being "clean"), a participant would have been excluded from eligibility if they were under the influence of a substance at the time of the interview (This did not happen.). Given how participants were recruited for the study, most sought recovery through a 12-step fellowship, although some individuals sought recovery through other means (eg, church).

Interview Protocol

The study's PI conducted all interviews, and no other individuals were present for each interview (ie, only the PI and the participant). Because some interviews occurred in public spaces such as coffee shops or libraries, the PI would arrive in advance to locate a seating area not too close to any other people who may have been in the vicinity. The PI also double-checked with each participant that they were comfortable with the interview's location before beginning the interview. Interview length varied depending on how talkative a subject was, although the average interview length was 25 min long. The longest interview lasted 62 minutes, and the shortest lasted just 9 minutes.

Subjects were asked about whether they had attended virtual meetings during the pandemic, and if they still attend online meetings. The specific questions participants were asked pertaining to virtual meetings were as follows: "How would you say COVID-19 impacted meetings (in-person, Zoom)?," "Have you attended virtual meetings? Do you still attend virtual meetings?," "How has that been for you (attending virtual meetings), as opposed to attending in-person meetings?," and "Were there any Internet obstacles to attending Zoom meetings? Can you tell me more about those?" This approach was used because the PI's understanding in advance of beginning the study, based on pre-testing the interview questions, was that virtual 12-step meetings as well as hybrid meetings (ie, in-person with a simultaneous

virtual option) are still ongoing despite the pandemic waning. The PI's starting assumption was that some participants would have attended virtual meetings out of necessity and then stopped once in-person meetings returned; others would continue to attend virtual meetings; and still others would have briefly tried a virtual recovery meeting and stopped right away because they did not care for the format. This approach informed the coding (discussed shortly) used to code the interview transcripts.

Data, Coding, and Analyses

Subjects' interviews were recorded and subsequently transcribed using an outside transcription firm. Three student research assistants separately performed the initial coding of the qualitative data (ie, words and phrases) in the transcripts, and for interrater reliability checked each other's coding. The PI then checked the research assistants' coding.

Subjects' answers to open-ended questions were coded using a code list created based on the interview protocol using Atlas Ti qualitative analysis software. Atlas Ti has been used in other public health qualitative research.[39,40] Coding from a code list is a first step in doing a content analysis[41] of responses to open-ended questions (eg, "How has it been for you, attending virtual meetings as opposed to in-person meetings during the COVID-19 pandemic?"). Content analysis is a method of analyzing written communication, such as interview transcripts.[42] The researcher assigned content-relevant codes[43] to sections of text (sentences and paragraphs) in the software program. Once all text had been coded, the researcher then performed a search in Atlas Ti for all so-coded text, thereby beginning the content analysis process.

First, all relevant text was coded with the broad code of VIRTUAL MEETINGS. Once all the verbatim text from the interview transcripts was coded with this broad code, a qualitative data analysis approach[44] was employed. Coded text was reviewed and then further categorized into 9 recurrent themes (ie, codes) pertaining to in-person versus virtual meetings, as follows: prefers in-person meetings, likes virtual meetings, does not like virtual meetings, attends virtual meetings, likes both in-person and virtual meetings equally, connectivity and other issues, distractions while in virtual meetings, virtual meetings inadequate, and gratitude.

Results

Participants

As seen above in Table 1, of the 50 subjects, 18 were female and 29 were male. Three individuals self-identified as gender fluid. All but 2 were Caucasian, in keeping with the largely Caucasian population of the state. The mean age range was 40s, although subjects ranged from being in their 20s to being in their 70s. The youngest individual was 21 years old

Table 1. Participant Demographics (n = 50).

Gender	• 18 Female
	• 29 Male
	• 3 Gender fluid
Race	• 48 Caucasian
Age range	• Mean age: 40s

and the oldest was 76 years old. Thirty percent of the sample (n = 15) indicated that they attend NA exclusively; 40% of individuals said they attend AA exclusively; and 20% indicated that they attend both 12-step fellowships. Five individuals have other mechanisms (eg, therapy, church) for supporting their recovery. Eight percent of the sample indicated that they currently or in the past participate in medication-assisted treatment, such as using doctor-prescribed suboxone to ease addiction to an opioid (heroin, fentanyl).

Feelings About In-person Versus Virtual Meetings

Many quotes reflected the fact that respondents saw the utility of both in-person and virtual meetings (Table 2). Among the reasons that interviewees said they **preferred face-to-face meetings** was the in-person, physical connection. "*I prefer in person because I feel like it's more intimate. You can actually look at the person you're talking to.*" "*I'm more inclined towards in-person meetings because it gives that sense of, like, community and, like, family sense, more than seeing each other through a screen.*" "*I just couldn't stand the format of the meetings or anything, until I started going in person.*"

Subjects both liked and disliked virtual meetings. In terms of **liking virtual meetings**, subjects mentioned convenience and the ability to attend meetings around the globe. "*I think the online meetings have made it more accessible from like, the comfort of my home or any time of day. I don't have to travel to a meeting.*" "*You just click on a link and you can be there at 10:00 in the morning or 2:00 in the afternoon. So I think it's been great.*" "*And we were hitting other meetings, you know, from different areas, and that was really fun to, like, hit Scotland meetings and, like, Arizona meetings and UK meetings.*" "*Some of the Zoom ones with AA were cool, because you could do 'em in Australia, you could do 'em all around, and that was, that was cool.*"

Among the reasons that interviewees **did not like virtual meetings** was the lack of physical contact. "*There were no hugs. There was no sharing of energy.*" "*It's so impersonal because everybody's got their pictures off, you can't see anybody, you have no idea who's talking.*" "*I work in front of a computer all day, I don't want to come home and have to sit in front of a computer.*" "*I don't care what anybody says, Zoom is not the same at all.*" "*I marveled at the people who got sober only through Zoom meetings.*" "*I think they're the dumbest thing in the world.*" One participant voiced concern

over the security of virtual meetings, stating "*Your photo's there on the Internet. And we all know how unsecure the Internet is.*"

Regardless of whether they liked or disliked virtual meetings, a number of statements indicate that participants did **attend virtual meetings**. "*We were doing heavily virtual meetings once they started. Me and my wife actually even started our own each, and she had a women's meeting going on, and I had a men's meeting going on a weekly basis.*" "*Zoom came into presence where it was a place to commune with people that were struggling with the pandemic but also their addictions.*" "*I did see a lot of new people come into Zoom, and get sober on Zoom, and continue to go to Zoom and don't go to in-person meetings.*"

Some subjects **still attend virtual meetings**. This is worth noting since virtual meetings continue despite in-person meetings having returned. In other words, recovering individuals still opt to participate in Zoom meetings despite the availability of in-person meetings. "*I'm actually still doing virtual meetings right now.*" "*I go to in-person meetings twice a week, and then, I do, or at least try to do, my schedule, an online meeting every day or every other day.*" "*I do have one meeting I do on Zoom religiously every week.*"

A few comments suggested that the respondent **liked both in-person and virtual meetings**. "*They both have their place. I'm not partial.*" "*I don't mind Zoom because you can do them any day of the week, anytime, any hour, anytime. If you're feeling like crap or you're feeling like relapsing, or you're down, that's there, somebody shows up at your house and bangs on your door and says, 'Hey, you want to get high?' And you're in a bad place, you can turn on your computer and type one little button, and it'll put you right into any meeting worldwide.*" "*I prefer in-person meetings, if I'm there, but Zoom ones are certainly more convenient. You don't even have to wear pants if you don't want to.*"

Finally, several comments expressed the respondent's **gratitude** for virtual meeting availability during the pandemic. "*I'm grateful for the opportunity and it was really amazing to me how the technology just kind of came together like that.*" "*I'm pretty grateful for them [virtual meetings].*" "*Clearly the use of Zoom and how AA found its way is a miracle about how recovery works is what I would say. I really feel like that was a lifesaver to my personal happiness.*"

Challenges Associated with Virtual Meetings

Vermont is a rural state, with limited Internet availability in some areas. As such, **problems with Internet connectivity** and other technical difficulties were described in a number of comments (Table 3). "*I couldn't attend the meeting because my cable was out, my Internet was out.*" "*Every once in a while the signal wouldn't be great, either on my end or someone else's end.*" "*There were some lags and stuff like that. There was some freezing for a little while.*" "*There's been a*

Table 2. Feelings About In-person Versus Virtual Meetings.

Prefers in-person meetings	Likes virtual meetings	Does not like virtual meetings	Attends virtual meetings	Likes both in-person and virtual meetings equally	Gratitude for virtual meetings
16*	23	19	23	4	4

*The numbers shown refer to the number of comments, rather than the number of individuals in the sample.

Table 3. Challenges Associated with Virtual 12-Step Meetings.

Connectivity and other issues	Distractions while in virtual meetings	Virtual meetings inadequate	Other
10*	8	8	3

*The numbers shown refer to the number of comments, rather than the number of individuals in the sample.

few times where I couldn't get into the meeting for whatever reason, because, like, the passcode was acting up on my phone, or whatever. And then, like, just having, like, technical difficulties makes it really difficult to be able to solidly communicate or listen and pay attention to meetings, especially when, like, there's a lot of static and, like, you physically cannot hear." "*As a 68-year-old, I did have a challenge.*" "*Zoom is like, far messier than people give it credit for, it can be difficult, and quirky, and people don't always send the right link, or they don't describe the process properly, or there's like a different code, but they meant an ID number.*" "*On Zoom, you have to, like, message people privately, which is kind of weird.*"

A number of comments indicated that participants found it easy to **get distracted** in virtual meetings, and not pay attention to the recovery message. "*It's too easy for me to just keep my camera blank and listen to what people are doing and just screw off and do whatever.*" "*I don't listen. I would turn my camera on and off and do other things.*" "*I get to see people's faces over Zoom, but, like, a lot of people have their camera off or are distracted, myself included.*" "*I had a harder time focusing and was more easily distracted. I often had to put it on speaker mode, because the only way I could focus is if I was looking at* one *person.*" "*I cannot focus, I do struggle with ADHD, and I can get distracted easily by what's going on in someone else's house.*"

Several comments reflected the respondent's feeling that virtual meetings alone, without an in-person recovery program, may be **inadequate** to help participants remain substance-free. "*There are some aspects of it [virtual meetings] certainly that are not as good, but it's adequate. It's adequate for me.*" "*I'm not sure that it would be for a newcomer. If it would be adequate or not.*" "*I didn't feel connected, honestly. For other people, they definitely did. But for me, I had a harder time feeling connected that way.*" "*I will say that, you know, though, those Zoom meetings. . . didn't necessarily enhance my recovery.*"

Finally, a few comments encompassed other information (eg, see column "Other" in Table 3)—that is, "informational"—that did not fit into the other subcode categories.

One participant mentioned accessing "*intherooms.com, which is a global recovery website. They've got 150 meetings a week.*" Similarly, another participant commented that a site they visited "*is called High on Life, and the other one is intherooms.com.*" Another subject mentioned attending a Zoom meeting called 319. Comments like these fell into the realm of neutral, informational responses.

Discussion

This study considered how individuals recovering from substance use disorder via 12-step programs felt about having to shift to virtual meetings during the COVID-19 pandemic. This study contributes to the literature as virtual companion resources to in-person health and medical services are likely here to stay, despite the pandemic having ended. Virtual health support services also hold promise for residents of rural areas, where in-person health services may be limited or located very far away.

High-level themes that emerged included many individuals preferring in-person meetings for a variety of reasons (eg, more intimacy). However, even those individuals who preferred in-person meetings were willing to give virtual meetings a try and continue to use them as a resource. Some positives of virtual meetings were mentioned, including convenience and the fact that they could be accessed from anywhere. Participants liked that they could attend virtual meetings unconstrained by geography. Virtual meetings did not work for everyone, with some comments reflecting computer fatigue after having been on a computer all day for work. These findings tie in with other research that has found that digital recovery support services help individuals with substance use disorders maintain their recovery even when they cannot attend recovery meetings in person.

As to the challenges in accessing virtual meetings, Internet connectivity presented an obstacle for some, as were technical difficulties such as having the right passcode to enter a meeting. Other research[45,46] has similarly found technical barriers to accessing virtual health services and education during the pandemic. Some comments reflected participants

getting distracted in virtual meetings and not being able to focus on the recovery message. Treatment providers working with clients in rural areas should be mindful of both client preference as well as Internet and technology obstacles to accessing digital recovery support services.

With the rise of easily available online therapy-type resources, national organizations such as the American Psychological Association[47] and the National Institutes of Health[48] have taken notice. While some evidence supports the effectiveness of such digital resources,[49] guidelines are needed to ensure patients' safety such as protecting against unexpected adverse events.[49] As one of the participants in the present study commented, the Internet is not always a secure environment for users. A breach of privacy particularly for individuals participating in a virtual substance use recovery program (or other health/medical program) could have adverse consequences and greatly undermine participants' trust in the services they need. Collaboration between practitioners, regulating entities and other stakeholders to agree on guidelines for safety and other matters is important[49]—and will need to be ongoing, as online technology and its many platforms will continue to evolve.

Limitations

Given how subjects were recruited and the modest sample size, it is not possible to generalize the findings to the larger state-, U.S.-, or global populations. As such, the findings should be viewed with that caveat. The demographics of the sample differ from those of the greater U.S. population, such as a lack of Black and Hispanic participants. People recovering from substance use disorder at times exist on society's fringes and struggle with other obstacles like homelessness. As such, a convenience sampling approach seemed preferable to random sampling (for example). There may be bias in the data in that subjects were recruited primarily from 12-step treatment fellowships where acceptance of one's addiction is central to participating in the program. Additionally, the interviewees may not be representative of individuals that have not yet sought out treatment for substance use disorder.

Participants were not initially asked for their age since it was not directly relevant to the study's focus. It became evident at the mid-study reporting point that the study's funder wanted demographic information about subjects including their age. The PI then retroactively added estimated ages to the subject data. Moving forward, the PI continued to record estimated age *ranges* (eg, 30s), choosing not to start asking future interviewees their age because this had not been done with past participants.

Finally, while the PI believes that a sample size of 50 individuals suffices to achieve saturation of the main research question, a formal power calculation regarding sample size was not performed as it is unusual to do so in qualitative research. Prior literature[38] on sample size in qualitative research supports the acceptability of a sample of 50 recovering individuals for an interview project such as this.

Conclusion: Implications for Virtual Services

While in-person recovery meetings (both 12-step and other types) have reopened, digital recovery support services can and should continue to be offered as some individuals find them helpful. There is no one-size-fits-all approach to recovery, and not all people recovering from substance use disorder like virtual meetings. That said, they may be willing to use them as a resource, particularly those individuals living in rural areas without many in-person resources readily available, or access to adequate transportation. Treatment providers working in rural states should advocate to policymakers for quality Internet services (eg, high-speed broadband access), to sufficiently meet residents' needs.

Author Contributions

Dr. Hassett-Walker is the sole author of the manuscript and is responsible for 100% of the writing in the paper.

Data Availability

Deidentified data used in the analyses presented in this paper are available from the author upon request and upon approval of the principal investigator's university's Institutional Review Board.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Ethical Approval and Informed Consent Statements

This study was approved in advance by the Norwich University Institutional Review Board (IRB; IRB #00005859) on November 30, 2021. Two IRB renewals were sought and obtained on December

19, 2022 and again on January 2, 2024. The chair of the IRB is Dr. Mark Stefani, mstefani@norwich.edu. Additional information about the Norwich University IRB can be requested from IRB@norwich.edu. Address: Norwich University, 158 Harmon Drive, Jackman Hall 325, Northfield, Vermont 05663. All participants received and signed written informed consent forms prior to being interviewed.

Consent to Participate

All participants received and signed written informed consent forms prior to being interviewed.

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Supplemental Material

Supplemental material for this article is available online.

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