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Abstract

Background: People who use drugs have been particularly vulnerable during the COVID-19 pandemic because of their unique social, harm reduction, and treatment needs. These unique needs and challenges have significant influence on the severity of their substance use, mental health symptomatology, willingness to engage in treatment, and adherence to treatment options. This has included immense challenges related to the dissemination of COVID-19 messaging and the need for harm reduction and treatment service entities to adopt new formats to continue operation.

Methods: In-depth interview data were collected people who use drugs (N=24) residing in Oklahoma from November 2020 through February 2021 to assess perspectives on (1) their access to harm reduction, substance use prevention, and treatment programs during the COVID-19 pandemic, (2) the perceived quality of such services and programs during this time, and (3) the perceived availability of tailored COVID-19 information.

Results: Several factors emerged related to accessing and quality of substance use services during COVID-19, including poor accessibility (e.g., internet access), diminished quality (i.e., lack of social support), and lack of tailored COVID-19 prevention and treatment messaging.

Conclusions: Upticks in COVID-19 cases and deaths are expected to continue as new SARS-CoV-2 variants are introduced. The present findings highlight the need for tailored COVID-19 messaging (e.g., minimizing the sharing of substance use supplies that can spread COVID-19, mask wearing, COVID-19 vaccination), which is responsive to unique needs of substance using populations. Similarly, as prevention and treatment programs are delivered online, efforts are necessary to ensure equitable access and enhanced quality of services.

1. Introduction

The events of the 2020 coronavirus (COVID-19) pandemic prompted marked increases in environmental stressors that contributed to challenges in coping with feelings of loneliness and isolation for many individuals—particularly among individuals who struggled with substance use and addictive disorders (Horigian et al., 2021; Iucchetti et al., 2020; Mota, 2020; Saltzman et al., 2020). Prolonged exposure to stressors has been known to increase craving and consumption of substances in those with alcohol and substance abuse disorders and exacerbate the risk of relapse and overdose (Jemberie et al., 2020; McKetta et al., 2021; Mota, 2020). The United States has experienced a 29.7% increase in drug overdose deaths since the start of the pandemic, with a 25.1% increase in Oklahoma (Ahmad et al., 2021). These vulnerable individuals were exposed to a shift in societal norms, everchanging policies, and media coverage which showed substance use as a more socially acceptable outlet for stress management, further affecting those who were already coping with substance use in their daily lives and increasing the need for substance use treatment services (Graupensperger et al., 2021a; Graupensperger et al., 2021b; Litt et al., 2021; Wardell et al., 2020).

The COVID-19 pandemic presented immense challenges for substance use treatment service providers as many had to adopt an online format to continue operations. Online support programs, in the right context, can be helpful for persons attempting to maintain recovery or stop misuse through counseling and meetings (Bergman et al., 2020; Spagnolo et al., 2020). Telemedicine can also be a useful practice to evaluate withdrawal symptoms and treat patients when physicians are not easily available or accessible (Molfenter et al., 2021). However,
many patients with substance use disorders are of low socioeconomic status, have poor living conditions, and are without access to electronic devices to utilize online services or telemedicine (Spangolo et al., 2020). Individuals who were able to utilize technology with the transition to online prevention and treatment services during the 2020 COVID-19 pandemic still faced challenges without an in-person connection (Jemberie et al., 2020; Mericle et al., 2020).

The benefits of programs such as Alcoholics Anonymous or Narcotics Anonymous depend on supplying a feeling of community and social support to their patients. As individuals are forced to spend more time in their homes and have limited access to in-person supportive programs, there is a possibility for an increase in alcohol consumption and drug use, especially among predisposed individuals (Marsden et al., 2020). Similarly, social support has been demonstrated to be critical to avoiding treatment interruption among those with substance use disorders (Kleinman et al., 2021; McDonnell et al., 2021; Rozanova et al., 2020). COVID-19 has directly impacted the continuum of healthcare. Residential programs took fewer new clients to accommodate social distancing (Pagano et al., 2021); however, service providers observed an uptick in patient flow (Caton et al., 2021; Lin et al., 2021). The rapid evolution of COVID-19 forced treatment programs to quickly adopt new delivery of services, such as online formats. The nascent literature has demonstrated the effectiveness of telemedicine for treating substance use disorders (Fiacco et al., 2021; Langabeer II et al., 2021) and increased access to medication assisted therapy (Wang et al., 2021); however, few studies have explored consumer perceptions of care quality and accessibility during the pandemic. Therefore, the current study seeks to determine the subsequent level of accessibility and quality of online prevention, supportive, and treatment programs in Oklahoma along with the availability of pertinent COVID-19 information for those engaged in substance use (e.g., minimizing the sharing of substance use supplies that can spread COVID-19, mask wearing, COVID-19 vaccination).

2. Materials and Methods

2.1. Procedure and Participants

Incorporating the principles of community-engaged research, interview data were collected from substance using individuals (N=24) from Oklahoma to assess perspectives on (1) their access to harm reduction, supportive, and treatment programs during the COVID-19 pandemic, (2) the perceived quality of such services and programs during this time, and (3) the perceived availability of tailored COVID-19 information. Utilizing the core concepts of purposive sampling, participants were identified and recruited to form a more homogenous sample. This type of sampling is useful when the research question being addressed is specific to the characteristics of a particular group and is examined in detail (Bryman, 2006; Kemper et al., 2003). Participants were recruited through Internet-based direct marketing (e.g., advertisements placed on social media sites), social service and treatment facilities, and in a few instances, participants were referred to the study via their social networks.

Participants were eligible for the interview if they were proficient English speakers, 18 years of age or older, self-reported active substance use, and a resident of Oklahoma. Eligible participants were invited to complete a one-on-one semi-structured interview with a trained interviewer lasting approximately 45 minutes. After providing informed consent, participants completed the interview process and were compensated with a $25 retail gift card for their participation. The home university’s institutional review board approved the study, and each study participant completed an informed consent process.

As shown in Table 1, participants (N=24) ranged from 24 to 59 years of age (M=36.63), with most respondents identifying as male (91.7%), White (54.2%), unemployed (66.7%), and the highest level of education being a high school diploma/GED (54.2%).

| Gender | Cisgender Man | 91.7 | Cisgender Woman | 8.3 |
|--------|--------------|------|----------------|-----|
| Race/Ethnicity | Black or African American | 8.3 | White, Not Hispanic | 54.2 |
| | American Indian/Alaskan Native | 25.0 | Hispanic/Latino | 8.3 |
| | Mixed | 4.2 | | |
| Household Income in Past Year | $29,999 or less | 91.7 | $50,000-$79,000 | 8.3 |
| Relationship Status | Single | 45.8 | Married | 4.2 |
| | Domestic Partnership | 12.5 | Separated | 12.5 |
| | Divorced | 25.0 | | |
| Employment | Full-time | 12.5 | Part-time | 8.3 |
| | Full-time student | 4.2 | Unemployed (looking for work) | 66.7 |
| | Not in Workforce (Not looking for work) | 8.3 | | |
| Highest Level of Education | Less than High School Diploma/GED | 16.7 | High School Diploma/GED | 54.2 |
| | Some College or Technical Trade Schooling | 25.0 | Completion of Undergraduate Degree | 4.2 |
| Sexual Orientation | Heterosexual/Strait | 83.3 | Bisexual | 4.2 |
| | Gay or Homosexual | 8.3 | Unsure | 4.2 |

1Participants could select more than one
2.2. Data Analysis

Four research team members independently open-coded participant responses. Consistency checks were conducted in order to assess reliability among the coders. Responses were analyzed separately for each question using an inductive approach to identify and interpret concepts and themes that emerged from these data. Concepts were the most basic unit of meaning from which our results developed. Related concepts were grouped together to form overarching themes. We used the Statistical Package for the Social Sciences (SPSS) version 24 to analyze demographic characteristics and descriptive statistics (IBM Corp, 2016).

3. Results

Several factors emerged related to accessing and quality of services during COVID-19, including poor accessibility, diminished quality, and lack of tailored messaging. Specific elements of each theme are reflected in the subthemes. The identified themes and illustrative quotes are provided in Table 2.

Participants noted poor accessibility to services during the pandemic. While participants mentioned that some service providers shifted to virtual formats to accommodate COVID-19 safety measures, they also discussed how the virtual format posed challenges. Often, the video feed would cut out or be such an issue that attending sessions became so difficult that some stopped attending. Further, participants said they were met with limited availability of services. Participants living in more rural areas noted that local harm reduction and supportive services closed during the onset of COVID-19, requiring them to access in-person from entities in larger cities. Oftentimes participants reported they had neither the transportation or financial resources necessary for travel. Furthermore, some stated they did not have the means to attend virtual meetings, while others described difficulties with getting in-person appointments when needed.

Additionally, participants described the diminished quality of services they were able to utilize. First, participants expressed feeling a loss of social support. They said the virtual meetings were impersonal and lacked the feedback present during in-person sessions. Second, participants recounted a lack of engagement with services. They felt as if the online meetings were not as serious as in-person meetings and did not feel they benefited from the sessions. Some participants noted they were less likely to speak or provide input during a session, stopped attending virtual meetings, and others “shopped” online support groups in an effort to find one which met their needs. For example, one participant noted finding a group that brought in participants from across the globe. The diversity of attendees with varying degrees of English proficiency led to a slower paced discussion in which members were actively engaged by the facilitator to express their personal experiences.

Finally, participants felt these services did not provide relevant COVID-19 information for individuals engaged in substance use and this was reflected in a lack of tailored messaging for this population. First, according to participants, misinformation about COVID-19 transmission was circulating and service providers were unable to clarify with accurate information. Additionally, participants engaged in unhealthy practices that they perceived would prevent them from contracting COVID-19 such as increased alcohol use. Second, participants desired more information about their unique susceptibility to COVID-19 as individuals engaged in substance use. The effect of substance use on the immune system was a primary concern for participants.

4. Discussion

The COVID-19 pandemic posed significant challenges for both those engaged in substance use and treatment service providers. Providers shifted to online services out of necessity (Bergman et al., 2020); however, participants reported diminished quality of services that created negative perceptions toward online services. Our findings support the work of Barret and Murphy (2021) who found 12-step members experienced more challenges, less social support, less quality of social support overall, and less recovery network quality in comparison to their experiences in face-to-face meetings and settings. Further, the socioeconomic status of individuals engaged in substance use significantly influenced their ability to engage with new forms of treatment services.
(Wilkinson et al., 2020). Service delivery challenges during the pandemic highlight the need for face-to-face services to reach and support particularly vulnerable populations. One approach is to leverage peer recovery coaches or peer support specialists given their ability to provide guidance to clients based on their own experience (Hansen et al., 2020; Kleiman et al., 2020; Kleiman et al., 2021). This cadre of health professionals can address changes to social support services, individually engage with clients to reduce social isolation, and support continued engagement in care (Kleiman et al., 2021; Staton et al., 2021).

Individuals engaged in substance use did not receive tailored COVID-19 messaging, which led to the reduced perceived risk and severity of COVID-19 infection as well as enabling the spread of misinformation. Developing public health messaging tailored towards those individuals who are marginalized, including people who use drugs, is of utmost importance (Karamouzian et al., 2020; Wilkinson et al., 2020). As COVID-19 rates continue to rise in response to new SARS-CoV-2 variants, our findings underscore the need to increase harm reduction messaging related to minimizing the sharing of substance use supplies (e.g., pipes, e-cigarettes), mask-wearing, and the importance of vaccination among people who use drugs. Engaging with social networks are imperative for the dissemination of harm reduction information. Utilization of the Popular Opinion Leader model (Kelly, 2004; Quinn, 2020), which has been evidenced to promote HIV risk reduction among people who inject drugs, is one potential method to effectively disseminate public health information by trusted community leaders and social influencers. Trusted influential figures in the community who endorse COVID-19 prevention steps can add credibility to public health messaging, especially if there is distrust of governmental entities among the target population (Quinn, 2020).

5. Conclusion
Overall, further work is necessary to ensure substance use services are equitably available and accessible and contain high quality content during the ongoing COVID-19 pandemic. Increasing face-to-face services, virtually or in-person, for individuals and/or small groups is necessary to increase client engagement. Findings also indicate that harm reduction and COVID-19 messaging tailored to substance use populations during the pandemic was scarce; however, participants identified key messages around COVID-19 prevention and accessing services which should be delivered via multiple channels to improve the overall effectiveness of the dissemination of appropriate COVID-19 prevention information for substance use populations and improve access to services.

Declaration of Competing Interest
The authors declare that they have no conflict of interest. The authors alone are responsible for the content and writing of the article.

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Contributors
RDH, AMO, CE, and ZG designed the study. RDH, CE, and AO conducted data collection. CE, AO, MS, MH, and MR completed qualitative data analysis. RDH, MR, MS, and AMO drafted the manuscript; all co-authors edited the draft of the paper.

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