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ALCOHOL (R LEEMAN AND L HONE, SECTION EDITORS)

Treatment of Alcohol Use Problems Among Rural Populations: a Review of Barriers and Considerations for Increasing Access to Quality Care

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Abstract

Purpose of Review Individuals living in rural areas face unique challenges when accessing services for alcohol-related problems and are at increased risk of experiencing alcohol-related harms. We outline research on rural-urban treatment gaps in alcohol use treatment, identify common barriers to treatment, and provide recommendations for how to address the difficulties faced by this population.

Recent Findings Globally, individuals living in rural and remote areas are less likely to receive care for alcohol-related concerns compared to those residing in urban areas. Rural areas suffer from insufficient access to specialty providers, and rural residents are likely to experience greater stigma regarding seeking treatment for alcohol-related concerns.

Summary Given rural-urban disparities in access to treatment for alcohol use concerns, treatment efforts should incorporate stakeholders across the medical system. Telehealth options are particularly promising for increasing access to care. Adaptations should emphasize existing strengths among rural populations, such as strong religious beliefs and close community ties.

Keywords Rural · Alcohol · Urbanicity · Treatment · Disparities

Introduction

Alcohol use represents a significant global public health burden, contributing to risk for death and disability [1]. Rates of alcohol use and alcohol-related harms vary in complex ways according to geographic area and rurality. Although those in rural communities are more likely to abstain from alcohol, among those who do use alcohol, alcohol-related harms are generally more prevalent among rural, relative to urban, communities [2••, 3]. Further, rural-urban differences in alcohol-related harms appear to be increasing over time, such that rural residents are increasingly likely to experience greater harms (including alcohol-related mortality) compared to urban residents [2••, 4].

Despite their greater need for care, rural residents are less likely to receive mental health care and face unique barriers to accessing effective services for alcohol-related concerns [5, 6]. Emerging evidence suggests the COVID-19 pandemic has the potential to exacerbate these problems for rural individuals due to heightened pressure on already fragile healthcare systems, disproportionate rates of economic distress among rural individuals, and increases in alcohol use [7–10, 11•]. However, the COVID-19 pandemic also presents a unique opportunity to transform existing systems of substance use treatment and improve access to care for rural populations [12]. For example, additional federal, state, and local funds have been allocated to address mental health issues (including substance use) caused or exacerbated by COVID-19 [13, 14]. The pandemic has also drawn greater attention to gaps in mental health services and to the importance of mental health [15••], creating opportunities for new approaches. In the wake of such global changes, this is an optimal time to evaluate existing rural-urban disparities and imagine a more promising future for the treatment of alcohol use concerns in rural areas.

In this review, we first outline the literature on existing rural-urban disparities in access to treatment for alcohol use concerns (see Table 1). Next, we review practical barriers to treatment for rural residents and consider the role of stigma.

This article is part of the Topical Collection on *Alcohol*.

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Table 1 Recent studies examining rural/urban disparities and barriers in access to alcohol use treatment

Study	Sample	Location	Primary relevant findings
Abraham and Yarbrough (2021)	12,568 counties	USA	Availability of medications for AUD was significantly higher in urban than rural areas ($p < 0.01$).
Ali, Nye, and West [16]	720 women ages 18–44 with SUD in the past year who have at least one child	USA	Those in rural counties had 90% lower odds of receiving treatment compared to those in urban counties and had 50% greater odds of identifying access-related barriers to treatment.
Bensley et al. [19]	3458 Veterans living with HIV who received a positive AUD screen	USA	Those living in urban areas were the most likely to receive specialty addictions treatment (28.2% compared to 19.6% of rural residents), but rural residents were more likely to receive brief interventions.
Broffman et al. [20••]	33 South Dakotans with mental health, substance use, and co-occurring disorders	USA (incl. reservation lands)	In qualitative interviews, excessive alcohol consumption was seen as normative in rural and reservation communities; seeking mental health care or maintaining sobriety was viewed as a matter of willpower.
Browne et al. [40••]	40 clients at 9 SUD service agencies	Southeastern United States	Four themes emerged as barriers in qualitative interviews: (1) lack of availability of services, (2) lack of access to technology, (3) cost of services, and (4) stigma.
Calabria et al. [33]	Urban and rural regions	Australia	There was limited availability of alcohol and drug treatment services for young people or older adults, and day care services were absent in most areas.
Chandra, Mohammadnezhad, and Ward (2018)	17 articles on the influence of communication and trust in doctor-patient relationships	N/A	In rural areas, determinants of trust were more likely to be related to the doctor's level of interpersonal treatment and knowledge of the patient than in urban areas.
Cherry and Rost [28]	Rural, low-income Hispanic farmworkers and their spouses	Southeastern USA	Receptivity to alcohol treatment was high (75%) among those who screened positive for harmful and hazardous alcohol use.
Crumb, Mingo, and Crowe [41••]	53 rural, low-income individuals who received mental health treatment	USA	In qualitative interviews, participants reported that views that God is all you need were common and contributed to stigma in seeking help. Participants also reported fears of being perceived as weak. Participants preferred providers to be nonjudgmental and active listeners.
Cyr et al. [37••]	67 articles on access to specialty healthcare in rural and urban areas	USA	Across studies, rural areas tended to be less likely to have specialty SUD treatments available than urban areas.
Edmonds et al. (2021)	9455 Veterans with an AUD diagnosis in 2012	USA	Those living in rural areas had 12% lower adjusted odds compared to urban residents of initiating treatment and had 14% lower odds of meeting engagement criteria if treatment was initiated.

Table 1 (continued)

Study	Sample	Location	Primary relevant findings
Groves (2019)	Narrative review of rural alcohol and drug use treatment	Australia	Authors noted that distance is a major barrier to accessing alcohol and drug treatment services for rural residents in Australia given the country's large size.
Kanamori, Shrader, and de la Rosa [49]	213 Latina seasonal farmworkers	USA	Concerns about legal status and discrimination were associated with higher rates of at-risk drinking and served as potential barriers to accessing treatment.
Maulik et al. [81•]	1417 residents of villages involved in an anti-stigma campaign	Andhra Pradesh, India	Stigma perceptions related to help seeking improved significantly over the course of the anti-stigma campaign ($p < 0.001$).
McDaniel et al. [18]	5080 Veterans and service members	USA	Rural individuals had significantly lower odds of receiving an alcohol screening and of receiving advice on alcohol consumption compared to suburban/urban residents.
Mushi et al. [32•]	1604 adults	Northern Tanzania	0.3% of participants had documented AUD screening and management, and only 5% of those who screened positive for AUD had sought help. Barriers to help seeking included thinking the problem would get better on its own, wanting to handle it alone, and not being bothered by the problem.
Myran et al. [35]	829,662 ED visits due to alcohol between 2003 and 2017	Ontario, Canada	Rates of ED visits due to alcohol were significantly higher in rural (56 per 10,000 individuals) compared to urban (44.8 per 10,000 individuals) settings. Increases in visits throughout the study period were higher in rural than urban settings (82 vs. 68% increase).
Nalwadda et al. [31•]	1129 men	Kamuli District, Uganda	55% of men with positive screens for AUD did not seek treatment because they did not think that AUD could be treated. Internalized stigma was common, with 42.5% of men feeling embarrassed or ashamed due to alcohol problems.
Ohl et al. [38]	416,338 Veterans eligible for VA community care	USA	70.2% of rural Veterans eligible for VA community care lived in mental health care shortage areas. Therefore, initiatives aimed at purchasing community care for Veterans living far from VA facilities might not be helpful, as these areas are underserved by community providers as well.
Richard et al. [43•]	34 stakeholders in rural counties	Appalachian Ohio, USA	Participants consistently reported that a "conservative" culture where abstinence is viewed as necessary to be successfully in recovery was a barrier to medication-assisted treatment use.

Table 1 (continued)

Study	Sample	Location	Primary relevant findings
Saunders et al. [36]	60 stakeholders at three rural health centers	Maine, USA	Stakeholders all agreed that universal screening for substance use was important. Patient barriers were primarily related to a lack of rapport with providers and concerns about trust, judgment, and privacy. Provider barriers included lack of comfort, training, and preparedness to discuss screening results and offer treatment.
Schroeder et al. [42]	749 adults	North Dakota, USA	Higher levels of stigma around mental illness were present in rural areas and among males compared to females. Females in rural areas reported higher levels of stigma than those in urban areas.
Schut and Boen [27••]	11,594 agricultural workers	USA	Non-white Latinx agricultural workers reported lower healthcare utilization and more barriers to help seeking in states with more restrictive immigration policies. There was little difference in healthcare utilization for undocumented workers, who had consistently low levels of help seeking regardless of state immigration policies.
Zewdu et al. [30•]	1500 adults	Sodo District, Ethiopia	87% of those with AUDIT scores ≥ 16 had never sought help for alcohol problems, and 70% reported high levels of internalized stigma. Barriers to seeking help were: (1) wanting to handle the problem alone, (2) believing the problem would get better on its own, and (3) being unsure of where to go for help.

Finally, we end by providing our recommendations on how to effectively address the unique challenges and needs of rural individuals experiencing alcohol-related concerns. To conduct this review, we accessed several databases for peer-reviewed studies relevant to these topics that had been published in the last five years. Articles published more than 5 years ago were excluded unless they were of high relevance and importance to the topic or more recent data were unavailable.

Rural-Urban Disparities in Access to Treatment for Alcohol Use Concerns

USA

Several studies have examined disparities in receiving treatment for alcohol use concerns based on rural-urban residency, with many focusing on special populations such as women and veterans. Among one study of women who are parents, those in rural counties who desired treatment for substance-related concerns were 90% less likely to receive it compared to similar women in urban counties [16]. Studies of veterans find similar disparities, such that those in rural areas are less likely to receive treatment for alcohol-related concerns. Veterans in rural areas were 17% less likely than veterans in urban areas to receive evidence-based medications for alcohol use disorder (AUD) [17]. In another study, rural veterans were less likely than urban or suburban dwelling veterans to receive an alcohol screening at medical checkups [18]. Among those who did complete a screening and endorsed heavy alcohol consumption, rural veterans were 63% less likely to receive education on alcohol use and 92% less likely than suburban dwelling veterans to receive advice about cutting down or stopping their alcohol use [18]. Finally, one study of veterans living with HIV found more modest differences in alcohol treatment following positive screens for problematic use [19]. Veterans with HIV residing in large rural areas were the most likely to receive a brief intervention within 2 weeks of the positive AUD screen, though urban veterans with HIV were more likely to receive specialty substance use treatment [19]. In general, rural individuals in the USA are less likely to receive treatment for alcohol-related concerns than urban or suburban residents.

While there are gaps in access to alcohol treatment, there may also be differences in perceived need for treatment. For example, in one study, 14 out of 15 residents of South Dakota who received a positive screening for problematic use did not believe they had a problem [20••]. Definitions of problematic alcohol use tended to involve a high level of distress or impairment in these communities, with individuals identifying legal problems, causing others harm, and performing poorly at work or neglecting family responsibilities as the main signs someone has a problem with alcohol [20••]. Among veterans with a positive AUD screen, those residing in rural areas were 12% less likely to initiate treatment and 14% less likely to meet engagement criteria if they did initiate services [17]. Therefore, rural individuals may have a higher threshold for recognizing a need for alcohol treatment.

Similarly, a recent report found rural individuals were less likely than urban residents to have been self-referred to substance use treatment (22.8 versus 38.7%) and much more likely to enter treatment as a result of a court order (51.6 versus 28.4%; [21]). We speculate this difference in court-mandated treatment rates may be partially related to a lack of public transportation in rural areas. Given limited availability and longer distance travel in rural areas, rideshare use also remains low among rural residents, with only 19% reporting they have used a rideshare app [22]. Because rideshare programs have been found to reduce alcohol-involved traffic accidents and impaired driving [23, 24], rural residents may be more likely to engage in alcohol-impaired driving, leading them to receive court-mandated treatment at higher rates than their urban counterparts.

Agricultural workers in the USA, 73% of whom are estimated to be im/migrants [25], face additional barriers to accessing treatment for alcohol concerns compared to most rural Americans. Rates of healthcare utilization (not specific to alcohol use) among this population are strongly tied to nativity, race/ethnicity, and documentation status. For example, although 84% of white non-Latinx workers had seen a healthcare provider in the past 2 years, only 42% of undocumented non-white Latinx workers had done so [26]. Almost no studies exist examining utilization of alcohol treatment services among this group, despite high levels of alcohol misuse reported by farmworkers [27••, 28]. In the single study we are aware of, 75% of rural Hispanic farmworkers who screened positive for hazardous/harmful alcohol use were receptive to alcohol treatment [27••].

African Countries In a study of rural Ethiopians, 87% of those with moderately severe AUD did not receive treatment for their alcohol problems [29]. Among men in the rural Kamuli District of Uganda, 4.1% screened positive for AUD, but none had sought treatment [30•]. Another study found extremely low rates of screening for AUD among rural individuals in Tanzania, with only 0.3% of those with likely problematic alcohol use receiving screening and management for alcohol-related concerns [31•]. Given the lack of healthcare infrastructure and other barriers, rural residents in low- and middle-income African countries are likely to experience significantly greater disparities in access to treatment for alcohol use than rural residents in the USA.

Australia One study of rural and urban alcohol and drug treatment facilities in Australia found considerable

variability in access to care in rural areas. Although residential and outpatient programs were available in both rural and urban areas, urban regions had the greatest diversity of services [32•]. Urban regions were also more likely to have specialty treatment programs for children and adolescents [32•]. Given Australia's size and expansiveness, many rural residents may be located hundreds of kilometers from services, making access infeasible. As an example, individuals in Mount Gambier, a small town in South Australia (though the second largest in the state), reported needing to drive almost five hours to access treatment [33]. Such findings illustrate the challenges the large size of Australia poses to the delivery of traditional, in person approaches to alcohol treatment for rural residents.

Canada Rural Canadians were more likely to visit the emergency department due to alcohol than urban Canadians (56.0 vs. 44.8 per 10,000 individuals) [34•]. When stratified by gender and age, rates of alcohol-related emergency department visits were highest among young men aged 15 to 24 years [34•]. Though not directly assessed, the utilization of emergency department services may indicate rural individuals are not being captured at less intensive levels of care.

Practical Barriers to Treatment Access in Rural Populations

Rural populations are subject to practical limitations that make accessing alcohol treatment challenging. In one survey of rural patients and providers, there was widespread agreement regarding the need for regular universal screening for hazardous alcohol use during primary care visits [35]. However, both groups noted barriers to effective screening and treatment referral. For rural patients, barriers were associated with specific patient concerns about the doctor-patient relationship. Patients were concerned disclosing substance use could affect their subsequent treatment and expressed worry about who might have access to their screening results [35]. These concerns may be exacerbated by the reality that doctors and patients in rural areas are more likely to interact with each other outside of the office and may have overlapping social connections.

Among doctors, concerns were primarily related to perceived competency and time limitations. Many providers indicated they did not feel comfortable discussing substance use with patients or had not received education in how to conduct screenings for alcohol use [35]. These issues were exacerbated by perceived time pressures during visits and insufficient provider knowledge of treatment options and referrals in the event a rural patient expressed concerns about substance use [35]. A lack of provider competency in substance use screening and treatment is not unique to rural providers, but adequate training in this area may be particularly helpful for doctors who will practice in rural settings, as they are often required to provide necessary substance use care in the absence of specialty provider availability.

Other studies involving rural patients identified similar practical barriers to accessing care. Women in rural counties had greater odds of encountering a lack of openings in substance use disorder treatment programs, few specialty treatment providers in the area, and insufficient access to transportation compared to women in urban counties [16]. These findings are consistent with research showing that rural areas have significantly fewer specialty mental health services, including those related to substance use [36]. In one study, almost three-quarters of rural veterans (73.3%) resided in counties without a single practicing psychiatrist [37••]. Rural counties are also less likely to have specialty providers offering medications for AUD [38]. These practical challenges are not limited to rural residents in the United States. A study of rural residents in Ethiopia found one of the most significant barriers to receiving alcohol use treatment was not knowing where to access care [29], while a study of men in a rural Ugandan village found the majority of those at risk for alcohol-related harms did not seek treatment because they believed there was no effective treatment available [30•].

What Is the Role of Stigma in Impeding Access to Alcohol-Related Services for Rural Patients?

In addition to practical barriers, rural populations are vulnerable to experiencing stigma when seeking treatment for alcohol use concerns. Because rural populations tend to be small and close-knit, many express concerns regarding privacy. In one study of rural Southerners in the USA, privacy was the top concern among almost one in ten individuals (7%) [39••], and participants indicated that fear of others finding out about their substance use problems was a barrier to seeking treatment [39••]. Furthermore, concerns about privacy exacerbated other barriers, including lack of transportation, as participants knew local medical transportation providers personally and feared they would share information with others [39••]. Another survey of individuals in a rural community also found concerns regarding privacy were prevalent among those considering mental health treatment [20••].

While there are profound concerns about experiencing stigma from community members, many rural individuals describe elevated levels of internalized stigma regarding seeking help for alcohol use concerns. Rural community members may view lack of control over one's drinking as a sign of weakness [20••, 40••]. Consistent with masculine norms regarding strength, self-reliance, and emotional restraint, men in rural areas tend to exhibit higher levels

of stigma toward mental health help-seeking compared to women, though women in rural areas still report higher levels of stigma than those in urban areas [41••]. Among rural Ethiopians, as many as 77% reported internalized stigma, including feeling disappointed in themselves and embarrassed about their problem [29].

In general, religious beliefs predict positive outcomes in treatment studies [36••]. In rural communities, however, religious beliefs or affiliations may also act as a barrier for help seeking. One qualitative study of mental health stigma found many low-income rural individuals expressed a belief that God was all they needed to get better [40••]. In communities where these opinions are present, individuals may feel seeking help from a mental health care worker reflects a moral failure or failure of religious beliefs. Additionally, they may perceive that mental health services would not be as useful for them as their religious practice. Members of rural communities frequently describe substance use as a moral issue [42]. As such, rural individuals or their concerned family members may be more likely to seek help from religious leaders when alcohol use problems arise [43•, 44••]. Without adequate communication and trust between religious leaders and local mental health workers, individuals may be unlikely to receive referrals to mental health services that could provide substantial benefits.

Finally, stigma may also act as a barrier to initiation of medication-assisted alcohol treatment. Currently, three medications have been approved by the Food and Drug Administration for treating AUD: acamprosate, disulfiram, naltrexone (oral and extended-release injectable), while numerous other medications are being investigated for treating alcohol-related concerns [45]. These drugs have the potential to improve treatment of AUD and to expand access to care, including to those in rural communities where substance use programs and mental health providers are lacking. Though not specific to alcohol use, several studies of rural communities found that there are prevalent beliefs that taking medication to stop using a substance is not consistent with true sobriety or recovery [42]. The perception that taking medication for AUD is not consistent with true sobriety remains an important barrier to receiving medical treatments among rural populations. All-or-nothing beliefs about recovery also discourage individuals from experimenting with moderation, which can be a useful management strategy in and of itself or can represent an initial step toward change that culminates in sobriety [46].

Recommendations for Improving Access to Care Among Rural Populations

Although rural populations face unique barriers to accessing alcohol use treatment (see Fig. 1), steps can be taken to reduce disparities by directly targeting known challenges. Here, we provide recommendations for improving access to care for alcohol-related concerns among rural populations.

Addressing Provider Barriers

Providers who pay particular attention to developing and maintaining a trusting relationship with their patients may be more successful at helping them identify substance use problems and initiate positive change in substance use. Many rural patients described concerns about how they would be perceived by their doctor if they discussed alcohol use and were worried about who would have access to their records [35]. Therefore, doctors should work to build a trusting

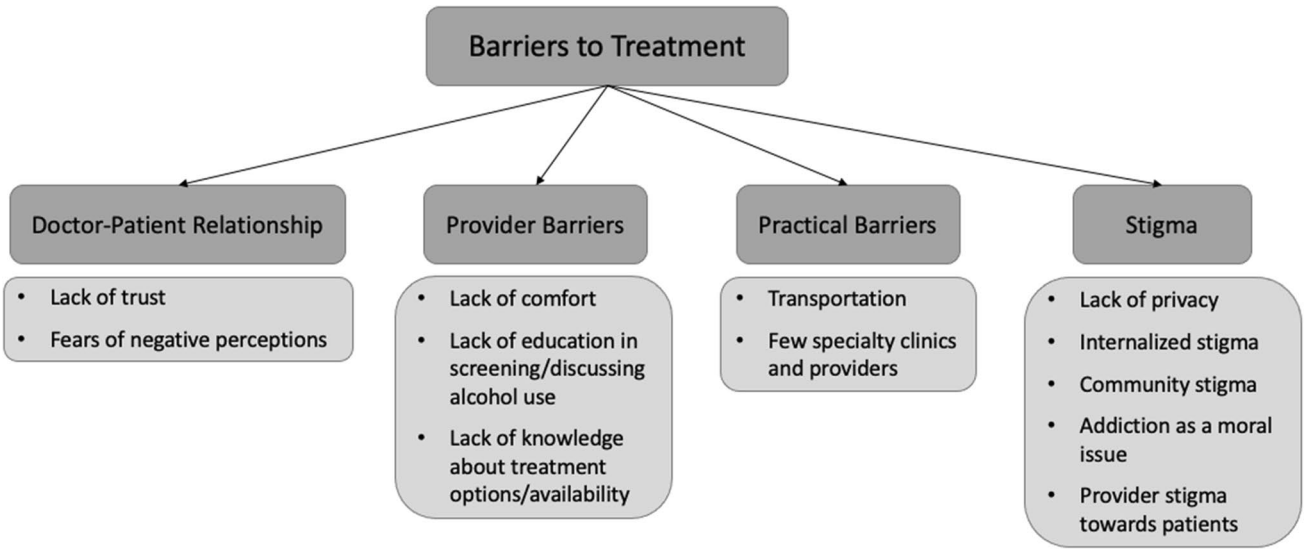

Fig. 1 Identified barriers to alcohol use treatment among rural populations

relationship with rural patients, which may include lengthening visits if possible, demonstrating interest in patients' personal lives, providing reminders about confidentiality before discussing sensitive topics, and displaying openness to answering questions about how health records are maintained and accessed. Research has found some of the greatest predictors of doctor-patient trust among rural populations are the doctor's knowledge of the patient and the quality of the interpersonal connection between doctor and patient [47]. Doctor-patient trust may be especially important for immigrant farmworkers in the USA, who report concerns about racial discrimination and legal status [48].

Doctors should work to adopt a nonjudgmental approach when discussing alcohol use with rural patients, as this was one of the key provider characteristics rural individuals desired [40••]. These considerations may be especially important for primary care physicians and emergency department doctors, who may be most likely to have first contact with rural patients struggling with alcohol use. Receiving training in motivational interviewing and the application of brief motivational interventions in primary care settings would aid doctors in promoting change and reducing resistance [49, 50]. Screening, Basic Intervention, and Referral to Treatment (SBIRT) is one evidence-based approach designed to increase early identification and treatment of substance use as a part of routine primary care [51]. Resources and training in SBIRT are freely available online [52–54].

Given that stigma is a particularly pernicious barrier for rural patients [35], providers who work with these populations should educate themselves in order to avoid contributing to a patients' sense of stigma. The National Institute on Alcohol Abuse and Alcoholism recently released The Healthcare Professional's Core Resource on Alcohol [54], which includes a section on stigma that offers free continuing education credits to providers [55••]. The Core Resource includes information about common misconceptions providers may hold about AUD and lists several additional stigma reduction resources to help providers continue engaging with this important topic.

High rates of religiosity among rural communities [56••] and beliefs that alcohol use problems represent a moral issue [42] suggest religious leaders may be another initial point of contact for rural families and individuals concerned with alcohol use. Therefore, mental health workers could foster connections with religious leaders in the community to improve trust and increase the likelihood that religious leaders would refer patients to services [43•]. A Clergy, Academic, and Mental Health Partnership Model (CAMP) developed to address disaster-related needs provides a promising framework [57]. CAMP involves collaboration, focusing on the unique strengths of each partner while reinforcing existing community resources and infrastructure and promoting information sharing [57]. In addition to building partnerships, mental health care workers should also utilize religion in alcohol treatment, including helping patients find support groups consistent with their beliefs, such as Alcoholics Anonymous, and encouraging prayer and religious practice as a method for coping with urges to use [58•].

Addressing Patients' Practical Barriers

In the wake of COVID-19, as telehealth becomes increasingly common, there are new opportunities for improving access to care for rural populations by reducing practical barriers, such as a lack of transportation and a scarcity of specialty clinics/providers trained in treating AUD in rural areas. Telehealth services can also help address concerns about privacy [20••, 39••], as these services allow individuals to avoid traveling to a clinic where others may see their vehicle or notice them entering and leaving. Studies among the general population demonstrate substance use services conducted via telehealth are as effective as those conducted in person [59, 60], and veterans with a substance use disorder diagnosis were more likely to prefer telehealth to in-person visits [61].

Mobile applications also hold promise for providing affordable and widespread access for rural individuals seeking to reduce their alcohol use. A mobile app that sought to enhance motivation by increasing self-efficacy and providing education about normative alcohol use was effective in reducing alcohol consumption and problems among veterans in the UK, though this was not a sample of rural individuals [62]. Similar improvements have been demonstrated with other apps among the general population [63]. However, not all studies have found improvements associated with the use of mobile apps [64]. While mobile applications hold promise for increasing access to care by reducing barriers, more research is needed to ensure applications make use of evidence-based approaches and are effective in reducing alcohol-related harms. Additionally, research is needed to examine the effectiveness of mobile apps among rural populations specifically. Importantly, despite the potential of telehealth and mobile applications for improving access to care, rural residents remain less likely to have broadband internet at home (72 versus 77%) and to have a smartphone (80 versus 89%) compared to urban residents [65]. Given the growing importance of access to the Internet, policies that improve availability of internet services in rural areas will be needed to address existing treatment disparities.

The application of medication assisted treatment (MAT) could address some practical barriers for rural residents. The use of medications to facilitate moderation or sobriety goals requires fewer provider contacts to initiate and continue treatment (as opposed to weekly therapy sessions or intensive outpatient programs) and can be provided by primary

care providers who are more numerous in rural areas than specialty providers. Additionally, MAT can be effectively paired with other approaches in primary care, such as SBIRT's stepped care model. Despite these strengths, MAT utilization may continue to be affected by concerns about privacy among rural residents. Telehealth MAT programs may help offset some of these concerns [66, 67].

Finally, it is critical to recognize the importance of healthcare and immigration policy for improving access to care among rural residents. Poverty rates in the USA are higher in rural areas compared to urban areas (15.4 versus 11.9%), and rural Black or African American residents have the highest incidence of poverty (30.7%; [68]). Policy decisions regarding expansion of healthcare access for low-income individuals have substantial impacts on the receipt of substance use treatment. For example, states that expanded Medicaid following the Affordable Care Act saw a 36% increase in the amount of people entering treatment for substance use compared to states that chose not to expand Medicaid [69]. Regarding the impact of immigration policies on rural residents, rates of healthcare utilization among non-white Latinx farmworkers are lower in states with more restrictive immigration policies [26]. Although providers who work in rural areas with substantial im/migrant populations can (and should) work to make their practices more friendly to these individuals by having translation services available and facilitating community partnerships, larger policy changes are also necessary to improve access to care. Given their knowledge of the healthcare system and its weaknesses related to underprivileged populations, providers can be useful advocates for policies that improve equitable access to care for rural residents [70, 71].

Targeting Internalized and Community Stigma

Although telehealth and mobile applications may help rural patients avoid exposure to stigma, they do not directly reduce stigma about seeking treatment. Stigma is one of the most difficult barriers to effectively address among rural populations, and doing so will require coordination among advocates, medical providers, religious leaders, and patients. Stigmatizing beliefs about substance use will not change quickly, but there is some evidence that stigma is decreasing, as evidenced by less frequent use of stigmatizing language about substance use in internet searches among the general population [72]. As relevant organizations and researchers advocate more strongly for the adoption of person-first and non-stigmatizing language when describing substance use, those who use substances, and those who experience substance-related harms [73–75], these trends will hopefully continue.

Psychologists and other providers have a role to play in helping to reduce stigma. For example, psychologists can work with patients in treatment for AUD to develop mindfulness and acceptance skills, which can help promote resilience against internalized stigma beliefs by reducing judgments and enhancing openness and flexibility [74, 76]. Specific strategies might include mindful self-compassion [77] and self-validation [78]. Additionally, providers should lead by example, using non-stigmatizing and nonjudgmental language when having conversations about alcohol use with patients and when documenting medical care. Mental healthcare providers can develop partnerships with local religious leaders, as building trust between these groups can help bridge access to care [79]. These efforts could help reduce stigma by providing more education to religious leaders about medical and psychosocial causes of substance use (in contrast to moral/character explanations, which are associated with higher stigma [80]). Religious leaders may pass these beliefs and information on to members of the faith community, including families of individuals struggling with substance use and those who engage in substance use themselves.

Finally, community campaigns targeting rural areas may be helpful for reducing stigma. One multimedia campaign focused on reducing mental health stigma in rural South India found that hearing others talk about their mental health was the most effective aspect of the intervention for reducing stigmatized beliefs [81]. A campaign to increase social contact with those who struggle with substance use would be relatively easy to implement with video ads. Campaigns could also focus on providing education about the medical model of substance use, normative alcohol use behaviors, and how to find help for alcohol-related problems. Ideally, campaigns would be conducted in collaboration with local community leaders, mental healthcare workers, and patients themselves.

Conclusions

To improve the health of rural populations and reduce alcohol-related harms among these communities, several factors will be important (see Fig. 2): (1) using innovative and widely accessible treatment approaches; (2) facilitating cooperation and engagement among stakeholders, including primary care doctors, emergency departments, mental healthcare workers, and religious leaders; and (3) addressing stigma among rural residents by providing education to community members, taking transparent steps to safeguard confidentiality and privacy, and teaching acceptance-based skills to improve resilience against internalized stigma beliefs. Given that rural residents are most likely to receive care from their primary care doctors or in emergency departments, screenings for hazardous alcohol use should be routinely conducted within these settings. A stepped-care

Fig. 2 Recommendations for improving rural patients' access to quality care for alcohol use concerns

approach (such as SBIRT) would be especially beneficial for increasing access to care. Mental healthcare providers working with rural individuals should also seek to adopt a strengths-based approach to treatment by incorporating religious beliefs (when applicable), leveraging existing social supports and/or family ties, and building on patients' sense of self-efficacy. Despite unique challenges facing this population, mental health care providers working with rural residents can navigate these issues by adopting novel approaches in combination with traditional care and making small adaptations to current practice.

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Declarations

Conflict of Interest We have no conflicts of interest to declare.

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