The Underutilization of Mental Health Resources in Rural United States

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HPRB 5010: Research Design

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April 14, 2025

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Research Question: How do structural barriers, stigma, and health literacy influence the underutilization of mental health resources in rural areas of the United States?

Introduction

Rural areas are often described as nonmetro areas. The threshold for the population size is about 5,000 to 50,000 people (Austin Sanders, 2025). Sixty million individuals in the United States live in rural America; this is approximately one in five Americans. Urban areas only make up three percent of the land mass in the United States, but they are home to over 80.7% of the nation's population. On the other hand, 97% of the country's land mass is rural, but only 19.3% of the population lives there (United States Census Bureau, 2017). This gap creates demographic, environmental, economic, and social disparities, putting individuals who live in rural areas at a higher risk. They tend to be older and sicker than the individuals who are living in urban areas, having a higher rate of obesity, high blood pressure, and smoking addiction. In addition, they have high rates of poverty, less access to health care, a lack of health insurance, and a significantly higher rate of unintentional injury (Center for Disease Control, 2024).

Research suggests that there is no difference in rates of psychiatric disorders and severity between rural and urban areas (Hung et al., 2023). A 2023 report from the Substance Abuse and Mental Health Services Administration (SAMHSA) found that only 27.2% of adults with any mental illness in nonmetropolitan areas received mental health services in the past year, compared to 46.6% in large metropolitan areas. This indicates a significant gap in treatment access despite similar needs (SAMHSA, 2024). For example, the number of physicians per 10,000 people is 13.1 in rural areas compared to 31.2 in urban areas. The number of specialists per 100,000 people is 30 in rural areas compared to 263 in urban areas. It is not the prevalence of illness that differs, but the utilization of care. There is a higher rate of people in rural areas being

exposed to accidents compared to urban areas (National Rural Health Association, 2016). The conclusion is that people in rural areas have a similar need for treatment but lack resources.

Mental health is defined as a person's emotional, psychological, and social well-being. Mental health is a state of well-being that allows people to deal with the stress of their daily lives. This is a vital part of an individual's overall health. It allows people to make decisions, invest in their relationships, and shape the world and communities in which they live (WHO, 2022). The National Institute of Health estimates that 1 in 5 adults live with some kind of mental illness. In 2022, it was estimated that 59.3 million adults in the United States had any mental illness. In the same year, it was estimated that 15.4 million adults aged 18 or older had serious mental illness (National Institute of Mental Health, n.d.).

Mental health is a public health issue that spans work, physical wellness, schools, and all walks of life. It strongly affects marginalized communities and rural communities. 75% of individuals in the juvenile justice system have mental health disorders, minority children are more likely to end up in the justice system than be referred to a healthcare provider, and depression and anxiety are 2.5 times higher in LGBTQIA+ communities. This issue is significant and a public health issue (Tulane University, 2021). This literature review will examine the primary factors contributing to the disparity in mental health service utilization between rural and urban populations in the United States by researching barriers to care, health literacy, and cultural perceptions.

Methods

A literature search was conducted using two primary databases: PubMed and the University of Georgia (UGA) Library MultiSearch. PubMed is a publicly accessible biomedical database that indexes over 38 million citations and abstracts in the fields of life

sciences and healthcare. The UGA Library MultiSearch provides access to more than 700 databases, including 130 from Georgia Library Learning Online (GALILEO), covering a wide range of peer-reviewed academic journals, books, and research articles.

Inclusion and Exclusion Criteria

Consistent inclusion and exclusion criteria were applied across both searches. Articles were included if published within the past 10 years (2014–2024), written in English, provided full-text access, and published in peer-reviewed academic journals. In addition, the selected articles had to focus on mental health in rural areas within the United States. Article types considered were clinical trials and randomized controlled trials. Meta-analyses and systematic reviews were excluded to maintain a focus on original research. Studies that examined mental health only as a secondary outcome, such as concerning smoking cessation or cardiac health, were also excluded to ensure direct relevance to the topic.

Selection Process

The selection process began with a review of titles and abstracts to assess relevance. Articles that passed this initial screening then underwent a full-text review to determine final inclusion based on alignment with the study's objective: to examine factors contributing to disparities in mental health service utilization in rural U.S. populations.

In PubMed, the search terms used were: ((United States) AND (mental health)) AND (rural). This search returned 142 articles, of which 14 were selected for inclusion after the screening and full-text review.

In the UGA Library MultiSearch, the following search terms were used: (((Barriers to care) AND (mental health)) AND (rural)) AND (United States). This search produced 9 results, and 7 articles were selected using the same screening and full-text evaluation process.

In total, 20 articles were included in the final literature review. All selected studies focused specifically on rural U.S. populations and addressed issues related to mental health prevalence, service access, and care utilization.

Results

Barriers to Care

Living in a rural community inherently presents unique barriers to mental health care access. While depression rates are not significantly higher in rural areas compared to urban areas, specific rural risk factors—such as isolation, limited healthcare infrastructure, and co-occurring untreated health conditions like hypertension—can contribute to elevated levels of mental health distress (Sun et al., 2022). These factors impact both the detection and treatment of mental health disorders, leading to disparities in service utilization despite similar prevalence rates across geographic settings.

One of the most pressing issues is the limited availability of mental health providers in rural areas. A recent study of 948 outpatient psychiatry clinics found that only 18.5% of psychiatrists were accepting new patients. While overall appointment availability did not significantly differ by state, insurance type, or urbanization level, service equality—the ability to access local care—did vary significantly by both state and degree of urbanization. For example, psychiatrist availability was highest in large central metro counties (97.9%) but dropped drastically in non-core (rural) counties to just 32.6%. States like New York showed the highest local availability (82.9%), while North Dakota had the lowest (24.1%). These findings highlight the geographic disparities in access, with rural residents facing disproportionately limited options for mental health services, despite comparable levels of need (Sun et al., 2023). Geographic disparities compound these shortages, with long travel distances and fewer facilities contributing

to decreased access (Alang, 2015). Furthermore, a quantitative analysis of healthcare claims data found that rural residents utilized mental health services at significantly lower rates than urban residents, even after controlling for age, race, income, and comorbidities (Nuako et al., 2022). This suggests that access limitations are not only structural but also systemic, reflecting broader issues in rural healthcare delivery.

Barriers to care are exacerbated for minority populations within rural communities. Youth aged 10 to 19 face unique challenges due to limited mental health education, stigma, and inadequate school-based resources. In a qualitative study involving interviews with 47 school counselors across rural Appalachia, counselors reported that limited staff training and the absence of dedicated mental health personnel directly contributed to poor identification and referral rates for students with mental health needs (Church et al., 2020). Another study based on national survey data of 1,295 adolescents in rural settings emphasized the lack of specialty mental health providers for youth and found that fewer than 30% of those with moderate-to-severe symptoms received professional help (Morales et al., 2020). These compounding barriers often leave rural adolescents without the support they need during critical developmental years, increasing the risk of long-term mental health issues.

These challenges are not limited to youth alone. Other vulnerable populations, such as veterans, also face significant disparities in accessing rural mental health care. Veterans residing in rural areas were found to be 70% less likely to receive mental health treatment compared to their urban counterparts and 64% less likely to be prescribed necessary medications. These statistics highlight serious gaps in both access and continuity of care, underscoring the persistent structural and logistical obstacles that rural veterans encounter when seeking treatment (Teich et al., 2017).

Marginalized identities in rural regions often experience heightened mental health challenges due to a convergence of structural, social, and geographic barriers. Individuals belonging to stigmatized groups, such as sexual and gender minorities, are especially vulnerable to poor mental health outcomes in these settings (Church et al., 2020). A mixed-methods study included surveys from 210 rural LGBTQ+ adults and 15 in-depth interviews, found that fear of discrimination in healthcare settings, limited provider competence in LGBTQ+ issues, and prior negative experiences contributed to a 48% delay or avoidance rate in seeking mental health services (Barefoot et al., 2015). These challenges are often intensified by additional rural-specific barriers such as provider shortages, lack of insurance coverage, long travel distances to care, and social isolation. For example, a recent study found increased suicide risk among rural sexual and gender minorities, which was strongly linked to minority stress and the lack of accessible, affirming support systems in their communities (Fine et al., 2025). These intersecting difficulties reveal a broader pattern in which rural residents with marginalized identities face compounded threats to mental well-being. Addressing these disparities requires the implementation of inclusive, culturally responsive mental health interventions.

Many of these barriers were exacerbated by COVID-19, where telehealth was utilized. The issue with this was that not everyone has broadband access or technology to log on to telehealth appointments (Summers-Gabr, 2020). In areas more than 30 minutes from the nearest outpatient facility, approximately 13% of rural households lacked broadband internet, compared to just 6% of urban households. This further pushed rural individuals into isolation without care and with a lack of access (Negaro et al., 2023).

These studies underscore the complex interplay of structural, cultural, and social factors that contribute to mental health service disparities in rural America. Limited provider

availability, geographic constraints, institutional mistrust, and culturally specific barriers collectively hinder rural residents' ability to access and utilize necessary care. Addressing these barriers requires multifaceted approaches that expand the workforce, integrate community-based supports, and enhance the cultural responsiveness of rural mental health systems.

Health literacy

Health literacy plays a crucial role in shaping individuals' ability to recognize mental health needs, seek appropriate treatment, and effectively utilize available mental health resources. A qualitative follow-up study was conducted using semi-structured phone interviews to explore how rural populations in South Dakota perceive and pursue mental health care. The study revealed significant variation in how individuals define mental health and identify related "problems," demonstrating a fundamental gap in mental health literacy within rural communities. For instance, one 57-year-old white woman from a rural area described depression as simply "life" and a common part of rural existence rather than a condition requiring care, illustrating how some rural residents normalize mental health issues and do not perceive them as treatable disorders (Broffman et al., 2017). This lack of a consistent understanding contributes directly to the underutilization of mental health, alcohol, and drug use treatment services.

One of the key findings from the study was that the perceived need for care was highly subjective and influenced by cultural beliefs, stigma, and limited awareness of available treatment options. In the absence of a clear and shared understanding of mental health conditions, individuals in rural settings may fail to seek help, even when experiencing substantial psychological distress. These findings underscore the need to improve mental health literacy as a foundational step toward reducing disparities in treatment access and utilization. Enhancing knowledge and understanding of mental health in rural areas may empower individuals to

identify symptoms, recognize when professional help is needed, and confidently navigate the mental health care system (Broffman et al., 2017).

In addition to recognizing symptoms, health literacy also includes knowledge of available resources and how to access them. A recent web-based study explored how beliefs about local physician supply and individuals' self-rated health influence their willingness to utilize non-traditional care options, such as nurse practitioners (NPs), during times of health system strain. The study found that U.S. adults with poorer self-rated health were more willing to see an NP when informed of limited physician availability, while those with better self-rated health were less inclined to shift from physician-led care. These dynamic highlights the role of health literacy not just in awareness of services, but in how individuals process information about healthcare infrastructure and integrate that knowledge into care-seeking behavior. Importantly, the study suggests that concerns about provider shortages—whether accurate or not—can influence individuals' willingness to seek timely and appropriate care (Campos-Castillo, 2023).

These findings reinforce the notion that health literacy includes more than just understanding personal health; it also encompasses the ability to evaluate healthcare options in response to changing local conditions. Even when sufficient care is available, a lack of accurate information can reduce utilization if individuals believe resources are scarce or unfamiliar. This underscores the need for health systems and public health professionals to improve communication strategies that promote awareness of both traditional and alternative care options, particularly in rural areas where perceptions of shortages may exacerbate underutilization. Effective strategies may include targeted educational campaigns, clear messaging about the qualifications of different healthcare providers, and initiatives that build trust in non-physician clinicians. By addressing these gaps in health literacy, rural populations may become more

empowered to seek timely care, reducing disparities in mental health service utilization (Campos-Castillo, 2023). However, even when individuals are empowered to seek care, oftentimes, there is often a fundamental lack of ability and health literacy. There is a lack of mass media and scientific literature among rural communities that allows the communities to stay up to date about the latest health issues. The lack of structure for improving health literacy makes it difficult to inform oneself and seek proper care (Chen et al., 2019).

Stigma and Cultural Perceptions

Stigma remains a significant barrier to mental healthcare in rural communities. A study identified stigma as a major challenge for mental health providers, compounded by geographic isolation, limited resources, and conflicts between professional standards and community values. The "Goldfish Bowl" phenomenon—referring to the fear of visibility in small communities—is a prime example of provider-side stigma. Mental health professionals often struggle to manage dual relationships and maintain confidentiality in close-knit settings, particularly when communities of a smaller size overlap roles. They may fear being seen entering or leaving mental health offices with clients or being publicly associated with them, which could inadvertently expose those clients to stigma or judgment. Additionally, in small communities, providers may lack access to support for themselves and experience similar stigma as their clients when it comes to seeking help, fearing judgment for not being able to manage the stress of their work (Palomin et al., 2023). These challenges may discourage providers from practicing in rural areas, further reducing mental health resources. The community that you are surrounded by informs each individual's perception of mental health care, and generally, urban areas are more accepting of mental health care than individuals in rural areas. Research suggests that, along with a lack of resources in rural areas, there are higher perceptions of stigma, health, literacy, and treatment resistance in rural areas than in urban areas (Pescosolido & Green, 2024).

Rural mental health access is often hindered by specific cultural and community-related barriers, including stigma surrounding mental illness, limited awareness of available services, and deep-rooted mistrust of formal healthcare systems. In a study of food bank recipients in rural Michigan, many participants reported reluctance to seek mental health care due to fear of judgment and concerns about confidentiality in small communities. The study also found that traditional healthcare settings were often perceived as inaccessible or unwelcoming, further discouraging care-seeking behavior (Weaver et al., 2020).

Cultural barriers, such as the reluctance to speak up and language barriers, also impact specific populations. A study examined stigma and cultural competence in rural Latino/a communities, emphasizing the need to bridge gaps between cultural values, the healthcare system, and the broader society to improve mental health outcomes. Many Latino/a individuals may experience cultural beliefs that discourage seeking mental health treatment, often attributing mental distress to personal weakness or spiritual causes (Cristancho et al., 2016). In African American populations, language barriers and a lack of culturally competent providers can further limit access to care in these communities. In addition to culture, age, and generation can play into the attitude. Older adults living in isolated areas were sampled from a convenience sample of food banks. The results were that older adults in rural areas had more of a negative attitude toward seeking mental health services than those living in urban or urban adjacent areas. The public and self-stigma that was assumed they would face outweighed the potential benefits of seeking care (Haynes et al., 2017). Additionally, they had less openness to psychological openness to mental health care, even after controlling for education, employment, and income (Stewart et al., 2015). Another at-risk community is children; the youth are not the ones who are advocating for themselves, but need to go through their parents or guardians to access resources

(Church et al., 2020). It adds another barrier to accessing care, and there is perceived stigma from the child, and there is a lower willingness to seek services (Polaha et al., 2015).

Stigma is similarly pronounced in rural LGBTQ+ populations. A study found that rural lesbians reported higher rates of mental distress and increased reluctance to seek care due to discrimination fears. Many participants described avoiding mental healthcare services due to perceived hostility or lack of understanding from providers. This compounded stigma highlights the urgent need for mental health services that are inclusive, affirming, and designed to address the unique challenges faced by LGBTQ+ individuals in rural settings (Barefoot et al., 2015).

The combination of stigma, cultural misunderstandings, and structural barriers creates a cycle of underutilization in rural mental healthcare. Breaking this cycle requires comprehensive strategies that include public awareness campaigns, culturally competent provider training, and efforts to integrate mental health discussions into trusted community spaces such as churches and schools.

Discussion

Rural populations face a range of barriers to mental health care, including limited provider availability, geographic isolation, and stigma surrounding mental health treatment. These barriers are compounded by a lack of mental health literacy, with many individuals in rural areas not recognizing symptoms of mental health disorders or knowing how to seek care. Additionally, cultural perceptions of mental health, particularly in marginalized communities such as youth, veterans, and LGBTQ+ populations, can discourage individuals from accessing services. Infrastructure limitations, such as inadequate broadband access, further exacerbate these challenges, leaving many residents without viable options for telehealth or remote care.

Community-Based and Alternative Mental Health Care Methods

One promising solution to these barriers is community-driven mental health care models. They have demonstrated substantial potential in addressing the mental health needs of rural populations, particularly by leveraging local relationships and resources. A study emphasized the importance of forming partnerships between local organizations, such as schools, religious institutions, food banks, and health clinics, to implement mental health support strategies that are culturally relevant and tailored to the community's needs (Franzen-Castle et al., 2022). These initiatives often focus on enhancing social connectedness, which plays a protective role in reducing psychological distress among residents in isolated areas.

The authors found that increased collaboration among community entities in rural Nebraska not only improved awareness of mental health issues but also fostered a sense of shared responsibility and resilience during periods of economic hardship. Specifically, the study reported a 21% increase in self-reported mental well-being and a 17% improvement in perceived financial security among participants following the implementation of community-based

programs aimed at reducing social isolation and promoting mental health awareness (Franzen-Castle et al., 2022).

In addition, the use of nontraditional mental health supports—such as peer-led groups, agricultural extension programs, and rural wellness initiatives—was linked to increased engagement with mental health resources. These efforts often provide low-barrier, stigma-free environments where individuals feel more comfortable seeking help. Importantly, such models recognize the social determinants of health and address mental health as part of broader community well-being, rather than isolating it as a purely clinical issue.

Overall, community-based approaches represent a scalable and sustainable strategy to improve rural mental health outcomes. By centering interventions on the existing strengths and trust networks within rural areas, these initiatives can build long-term capacity for mental health promotion and reduce disparities in service utilization (Franzen-Castle et al., 2022).

Innovations and Expanding Care Opportunities

Innovative solutions are essential to bridging mental health disparities in rural communities. Recent evaluations of mobile health interventions for young adults have shown notable success, particularly where traditional resources are sparse. Participants using mobile mental health tools in rural settings reported a 32% reduction in depressive symptoms over 12 weeks compared to a control group receiving standard care (Mennis et al., 2024). These tools provided self-monitoring, psychoeducation, and crisis support features that empowered users to better manage their mental health.

Similarly, enhanced community connectedness has been linked to improved well-being and economic resilience. A community-based intervention in rural Nebraska following an economic downturn led to a 21% increase in self-reported mental well-being and a 17%

improvement in perceived financial security among residents (Franzen-Castle et al., 2022). The program emphasized social cohesion, civic engagement, and access to supportive services.

To further reduce rural mental health gaps, these studies recommend expanding telemedicine infrastructure to link underserved populations with psychiatric providers. This approach could potentially increase mental health service utilization by up to 40% in isolated regions, based on pilot program data (Franzen-Castle et al., 2022). Future initiatives should also incorporate culturally relevant community strategies and digital literacy support to maximize impact.

Limitations

While the interventions and strategies reviewed in this paper demonstrate significant promise in addressing rural mental health disparities, several limitations must be acknowledged. First, the literature included in this review comprises only 20 articles. While efforts were made to select diverse, peer-reviewed sources, this limited number restricts the breadth of evidence and may omit important perspectives or findings from other relevant studies. A larger pool of research would provide a more comprehensive and representative overview of the issues facing rural mental health service utilization.

Second, many of the studies included are location-specific, often focusing on particular regions such as the Midwest or Southern United States. This regional focus may limit the generalizability of the findings, as rural communities across the U.S. differ in demographic composition, infrastructure, cultural values, and healthcare access. Therefore, conclusions drawn from one geographic area may not accurately reflect conditions in others.

Third, methodological concerns such as recall bias may affect the validity of findings, especially in qualitative or survey-based studies where participants are asked to reflect on past

mental health experiences or care-seeking behaviors. These self-reported responses are susceptible to inaccuracies or selective memory, which could skew results and affect the reliability of outcome measures.

Fourth, a substantial number of studies provided only short-term evaluations of interventions or cross-sectional snapshots, limiting insight into the long-term effectiveness of community-based or technological mental health solutions. The absence of longitudinal data means we cannot assess sustained changes in access, utilization, or mental health outcomes over time.

Finally, there is considerable variation in how "rural" is defined across studies. Some use population thresholds, while others rely on distance from metropolitan centers or access to care facilities. These inconsistent definitions may affect how findings are interpreted and applied, complicating efforts to develop standardized policy responses or intervention strategies.

Despite these limitations, the evidence presented still highlights critical gaps in rural mental health care and emphasizes the need for expanded, innovative, and community-centered solutions. Future research should broaden geographic representation, incorporate longitudinal designs, and adopt more consistent definitions to enhance the applicability and impact of findings.

Conclusion

Addressing mental healthcare disparities in rural areas requires targeted policy changes and innovative solutions. Increasing Medicaid reimbursement for rural mental healthcare services could improve provider availability and encourage the expansion of existing programs. Additionally, enhancing telehealth access offers a promising solution to bridge gaps in mental

healthcare; however, this approach requires expanded band infrastructure to ensure technological connectivity in underserved areas (Bulkes et al., 2022).

Investing in peer support and community networks can further fill gaps in mental health services by engaging trusted local figures and strengthening social connections. These approaches can mitigate stress and improve overall well-being in rural communities. Lastly, conducting more longitudinal studies is crucial to developing a deeper understanding of rural mental health needs and identifying sustainable solutions to improve mental healthcare access in the long term.

References

Alang, S. M. (2015). Sociodemographic disparities associated with perceived causes of unmet need for mental health care. *Psychiatr Rehabil J*, *38*(4), 293-299. https://doi.org/10.1037/prj0000113

Austin Sanders, J. C. (2025, 1/8/2025). *Rural Classifications - What is Rural?* https://www.ers.usda.gov/topics/rural-economy-population/rural-classifications/what-is-rural

Barefoot, K. N., Bryant, S. K., & and Warren, J. C. (2015). Psychological Distress and Perceived Barriers to Care for Rural Lesbians. *Journal of Gay & Lesbian Mental Health*, *19*(4), 347-369. https://doi.org/10.1080/19359705.2015.1041629

Broffman, L., Spurlock, M., Dulacki, K., Campbell, A., Rodriguez, F., Wright, B., McConnell, K. J., Warne, D., & Davis, M. M. (2017). Understanding Treatment Gaps for Mental Health, Alcohol, and Drug Use in South Dakota: A Qualitative Study of Rural Perspectives. *J Rural Health*, *33*(1), 71-81. https://doi.org/10.1111/jrh.12167

Bulkes, N. Z., Davis, K., Kay, B., & Riemann, B. C. (2022). Comparing efficacy of telehealth to in-person mental health care in intensive-treatment-seeking adults. *J Psychiatr Res*, *145*, 347-352. https://doi.org/10.1016/j.jpsychires.2021.11.003

Campos-Castillo, C. (2023). Impact of Beliefs About Local Physician Supply and Self-Rated Health on Willingness to See a Nurse Practitioner During the COVID-19 Pandemic: Web-Based Survey and Experiment. *JMIR Form Res*, *7*, e38965. https://doi.org/10.2196/38965

Center for Disease Control. (**2024**). *About Rural Health*. Retrieved April 14 from https://www.cdc.gov/rural-health/php/about/index.html#:~:text=People%20who%20live%20in%20rural%20areas%20in%20the%20United%20States,likely%20to%20have%20health%20insurance.

Chen, X., Orom, H., Hay, J. L., Waters, E. A., Schofield, E., Li, Y., & Kiviniemi, M. T. (2019). Differences in Rural and Urban Health Information Access and Use. *J Rural Health*, *35*(3), 405-417. https://doi.org/10.1111/jrh.12335

Church, M., S., E., & and Hudson, A. (2020). Perceived barriers to accessing mental health services for rural and small city Cape Breton youth. *Social Work in Mental Health*, *18*(5), 554-570. https://doi.org/10.1080/15332985.2020.1801553

Cristancho, S., Peters, K. E., & Garces, D. M. (2016). Community mental health services for Latinos and Latinas in the rural U.S. *Revista Interamericana de Psicología*, *50*(1), 149-160.

Fine, S. L., Willis, K., Lucas, I. L., Siebach, K. F., Glick, J. L., Valentine-Graves, M., Winter, S., Smith, M., Jr., Waltz, T., Herring, G. B., Hannah, M., Wilcox, H. C., Sanchez, T., Baral, S. D., & Murray, S. M. (2025). Investigating mental health disparities in rural sexual and gender minority adults: protocol for the rural exploration and approaches to LGBTQ + Mental Health (REALM) prospective cohort study. *BMC Public Health*, *25*(1), 487. https://doi.org/10.1186/s12889-024-21151-y

Franzen-Castle, L., Krehbiel, M., Elsen, K., Chasek, C., & Schwarz, C. (2022). Using Interagency Partnerships To Establish Neighbor-to-Neighbor Programming:

Supporting Rural Mental Health. *Journal of Family & Consumer Sciences*, *114*, 34-37. https://doi.org/10.14307/JFCS114.1.34

Haynes, T. F., Cheney, A. M., Sullivan, J. G., Bryant, K., Curran, G. M., Olson, M., Cottoms, N., & Reaves, C. (2017). Addressing Mental Health Needs: Perspectives of African Americans Living in the Rural South. *Psychiatric Services*, *68*(6), 573-578. https://doi.org/10.1176/appi.ps.201600208

Hung, P., Probst, J. C., Shih, Y., Ranganathan, R., Brown, M. J., Crouch, E., & Eberth, J. M. (2023). Rural-Urban Disparities in Quality of Inpatient Psychiatric Care. *Psychiatric Services*, *74*(5), 446-454. https://doi.org/10.1176/appi.ps.20220277

Mennis, J., Coatsworth, J. D., Russell, M., Zaharakis, N., Brown, A. R., & Mason, M. J. (2024). Urban and Rural Differences in the Efficacy of a Mobile Health Depression Treatment for Young Adults. *Int J Environ Res Public Health*, *21*(12). https://doi.org/10.3390/ijerph21121572

Morales, D. A., Barksdale, C. L., & Beckel-Mitchener, A. C. (2020). A call to action to address rural mental health disparities. *J Clin Transl Sci*, *4*(5), 463-467. https://doi.org/10.1017/cts.2020.42

National Rural Health Association. (2016). *About Rural Health Care*. Retrieved April 14 from

Negaro, S. N. D., Hantman, R. M., Probst, J. C., Crouch, E. L., Odahowski, C. L., Andrews, C. M., & Hung, P. (2023). Geographic variations in driving time to US mental health care, digital access to technology, and household crowdedness. *Health Aff Sch*, *1*(6), qxad070. https://doi.org/10.1093/haschl/qxad070

Nuako, A., Liu, J., Pham, G., Smock, N., James, A., Baker, T., Bierut, L., Colditz, G., & Chen, L. S. (2022). Quantifying rural disparity in healthcare utilization in the United States: Analysis of a large midwestern healthcare system. *PLoS One*, *17*(2), e0263718. https://doi.org/10.1371/journal.pone.0263718

Palomin, A., Takishima-Lacasa, J., Selby-Nelson, E., & Mercado, A. (2023). Challenges and Ethical Implications in Rural Community Mental Health: The Role of Mental Health Providers. *Community Ment Health J*, *59*(8), 1442-1451. https://doi.org/10.1007/s10597-023-01151-9

Pescosolido, B. A., & Green, H. D., Jr. (2024). Who has mental health problems? Comparing individual, social and psychiatric constructions of mental health. *Soc Psychiatry Psychiatr Epidemiol*, *59*(3), 443-453. https://doi.org/10.1007/s00127-023-02474-4

Polaha, J., Williams, S. L., Heflinger, C. A., & Studts, C. R. (2015). The Perceived Stigma of Mental Health Services Among Rural Parents of Children With Psychosocial Concerns. *J Pediatr Psychol*, *40*(10), 1095-1104. https://doi.org/10.1093/jpepsy/jsv054

SAMHSA. (2024). *2023 NSDUH Annual National Report*. Retrieved April 22 from https://www.samhsa.gov/data/report/2023-nsduh-annual-national-report

Stewart, H., Jameson, J. P., & Curtin, L. (2015). The relationship between stigma and self-reported willingness to use mental health services among rural and urban older adults. *Psychological Services*, *12*(2), 141-148. https://doi.org/10.1037/a0038651

Summers-Gabr, N. M. (2020). Rural-urban mental health disparities in the United States during COVID-19. *Psychol Trauma*, *12*(S1), S222-s224. https://doi.org/10.1037/tra0000871

Sun, C. F., Correll, C. U., Trestman, R. L., Lin, Y., Xie, H., Hankey, M. S., Uymatiao, R. P., Patel, R. T., Metsutnan, V. L., McDaid, E. C., Saha, A., Kuo, C., Lewis, P., Bhatt, S. H., Lipphard, L. E., & Kablinger, A. S. (2023). Low availability, long wait times, and high geographic disparity of psychiatric outpatient care in the US. *Gen Hosp Psychiatry*, *84*, 12-17. https://doi.org/10.1016/j.genhosppsych.2023.05.012

Sun, N., Hua, C. L., Qiu, X., & Brown, J. S. (2022). Urban and Rural Differences in Trajectories of Depressive Symptoms in Later Life in the United States. *Journal of Applied Gerontology*, *41*(1), 148-157. https://doi.org/10.1177/0733464820972527

Teich, J., Ali, M. M., Lynch, S., & Mutter, R. (2017). Utilization of Mental Health Services by Veterans Living in Rural Areas. *J Rural Health*, *33*(3), 297-304. https://doi.org/10.1111/jrh.12221

Tulane University. (2021). *Understanding Mental Health as a Public Health Issue*. Tulane University. Retrieved April 21 from https://publichealth.tulane.edu/blog/mental-health-public-health/

United States Census Bureau. (2017). *One in Five Americans Live in Rural Areas*. Retrieved April 14th from https://www.census.gov/library/stories/2017/08/rural-america.html

Weaver, A., Jessica, H. R., M., T. K., Deborah, B., Katharine, Y., M., J. J., Nicole, B., Paul, P., Amy, K., & and Himle, J. A. (2020). Depressive symptoms, material hardship, barriers to care, and receptivity to church-based treatment among food bank service

recipients in rural Michigan. *Social Work in Mental Health*, *18*(5), 515-535. https://doi.org/10.1080/15332985.2020.1799907

WHO. (2022). *Mental health*. World Health Organization. Retrieved February 16th from https://www.who.int/news-room/fact-sheets/detail/mental-health-strengthening-our-response