

**Expanding Access to Mental Health Care in Underserved Communities Through
Telemedicine**

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The prevalence of anxiety and depression has become an increasingly alarming public health crisis in the United States (U.S.), especially following the coronavirus pandemic in 2020 (Sultana & Pagán, 2023). Terlizzi and Zablotsky (2024), reported that, in 2022, one in five U.S. adults experienced symptoms of anxiety and depression. Rates of these symptoms were highest among individuals living in underserved, low-income communities. In households living below the federal poverty level, 32.4% of adults reported symptoms of depression and 28.4% reported symptoms of anxiety. These rates are nearly double the 15.4% and 13.4% reported by adults living in households earning 400% above the federal poverty level (Terlizzi & Zablotsky, 2024). Research by McCord et al. (2022) suggests that these mental health disparities are attributed to transportation barriers, lower levels of education and health literacy, and inadequate insurance coverage. To address these disparities, behavioral health professionals have suggested shifting outpatient mental health services to a remote care model to improve access to timely and effective treatment for clients with anxiety and depression in underserved areas. This approach enhances client outcomes and reduces the occurrence of mental health crises by supporting virtual assessments, long-term therapeutic relationships, and prompt nurse-led interventions.

Financial constraints are a predominant barrier to accessing mental health services. In 2023, nearly 60% of U.S. adults reported that they were reluctant to receive professional help for mental health concerns due to potential costs (Reinert et al., 2025). In underserved communities where poor living conditions and job instability contribute to high rates of anxiety and depression, mental health care is often delayed, resulting in more severe symptoms and greater reliance on emergency medical services (Omiyefa, 2025). Mental health provider shortages are

an additional barrier that disproportionately affect low-income, rural communities. In 2024, nearly one-third of the U.S. population lived in areas with a shortage of mental health clinicians (Reinert et al., 2025). Low reimbursement rates from Medicare, Medicaid, and commercial insurance providers have deterred mental health professionals from practicing in already under-resourced communities (Omiyefa, 2025). As a result, individuals with mental health needs are either left unserved or forced to pay out of pocket for services (Reinert et al., 2025). Provider shortages also exacerbate transportation barriers in rural areas, resulting in missed appointments, nonadherence to treatment plans, and poorer mental health outcomes (Omiyefa, 2025).

Growing evidence supports the integration of computerized cognitive behavioral therapy as a means of addressing socioeconomic mental health disparities in underserved communities (Sultana & Pagán, 2023). Cognitive behavioral therapy focuses on identifying and restructuring negative thought patterns to promote healthier behaviors and emotional well-being (Bentley et al., 2021). In a study conducted by Ali et al. (2024), clients who participated in computerized cognitive behavioral therapy achieved a 71% higher success rate in treating depression compared to clients receiving traditional mental health services in primary care practices alone. Computerized cognitive behavioral therapy was delivered through nine online modules, supplemented by videoconferencing sessions with clinicians and periodic appointments with primary care providers (Ali et al., 2024). Beyond demonstrating clinical success and offering a flexible delivery model, computerized cognitive behavioral therapy has also demonstrated economic value. Ali et al. (2024) concluded that computerized cognitive behavioral therapy improved health outcomes by one quality-adjusted life year at an additional cost of approximately \$37,000. Although this represents an added expense, it remains well below the U.S. willingness to pay threshold of \$50,000, making computerized cognitive behavioral therapy

a cost-effective treatment option for clients with depression. Ali et al. (2024) also suggested that computerized cognitive behavioral therapy demonstrated effectiveness as a standalone treatment for depression and offered particular benefits for rural and underserved communities by delivering mental health services virtually and reducing costs associated with frequent in-person visits.

Video-based group therapy has also been strongly supported as an effective strategy for improving access to behavioral health services and mitigating disparities in marginalized communities (Bean et al., 2022). Utilizing Zoom, Bean et al. (2022) conducted group therapy sessions of six to twelve participants experiencing anxiety, depression, or substance use disorders. Over three years, progress was measured using the Depression, Anxiety, and Stress Scale-42 (DASS-42). Bean et al. (2022) concluded that clients participating in video-based group therapy experienced improvements in depression and anxiety symptoms at rates comparable to those receiving in-person care. These findings are further supported by McCord et al. (2022), who observed a 2.8-point reduction on the Patient Health Questionnaire-9 (PHQ-9), a screening tool for depression, among participants receiving video-based therapy, compared to a 2.9-point reduction among participants receiving in-person care over the course of one month.

Collectively, these findings highlight the effectiveness of video-based mental health care and support its use as an alternative treatment modality for disadvantaged populations. With outcomes comparable to in-person care, virtually delivered services foster social support networks from the comfort of home and reduce transportation-related barriers (Bean et al., 2022).

In addition to computerized cognitive behavioral therapy and video-based approaches, mobile applications demonstrating positive effects on mental health outcomes may also serve as a potential solution for systemic inequalities in underserved communities. In a study conducted

by Pardes et al. (2022), participants received mental health support through a mobile application on their personal device called NeuroFlow. Participants completed self-rating scales and had access to general health education and mindfulness tools. The NeuroFlow program alerted clinicians when participants were not progressing or experienced a decline in mental health (Pardes et al., 2022). At the conclusion of the eight-week study, participants exhibited a four-point reduction on the PHQ-9 and a five-point reduction on the Generalized Anxiety Disorder-7 (GAD-7) scale, a screening tool for anxiety (Pardes et al., 2022). Woebot, a similar mobile mental health application, achieved comparable results, with mean reductions of 7.28 points on the PHQ-8, an eight-item version of the PHQ-9, and 7.45 points on the GAD-7 (Chiauzzi et al., 2024). Unlike NeuroFlow, Woebot was powered by artificial intelligence (AI) and delivered evidence-based psychotherapy without clinician involvement, responding to accessibility challenges that NeuroFlow failed to address (Chiauzzi et al., 2024). Improvements on GAD-7, PHQ-8, and PHQ-9 measures following the integration of NeuroFlow and Woebot suggest that mobile-based approaches may be an effective alternative for individuals unresponsive to traditional treatment methods. NeuroFlow and similar digital platforms support continuous monitoring and prompt intervention through unconventional strategies, extending access to care in under-resourced regions where workforce shortages and financial constraints result in care delays (Pardes et al., 2022).

The growing integration of computerized cognitive behavioral therapy and mobile-based platforms in underserved communities is redefining the role of registered nurses in mental health care. By conducting ongoing virtual assessments, registered nurses can connect clients to local community resources and deliver timely, evidence-based interventions with minimal physician oversight (Bulto, 2024). As registered nurses assume expanded roles and greater autonomy,

individuals in underserved communities benefit from consistent support, reducing their reliance on emergency medical services (Omiyefa, 2025). Nurse-led remote mental health care models also enhance client engagement by fostering long-term therapeutic relationships and providing greater flexibility (Bulto, 2024). Innovative communication tools and improved data collection systems have further enhanced continuity and coordination of care across the interdisciplinary team (Bulto, 2024). With communities rapidly adopting digitally delivered mental health services, registered nurses are required to maintain technological proficiency while also adhering to evolving virtual assessment standards, privacy regulations, and their professional scope of practice to ensure ethical delivery of care and optimize treatment outcomes (Bulto, 2024).

Rates of anxiety and depression continue to rise in low-income, underserved populations. Workforce shortages, transportation barriers, and costly services restrict access to mental health care, leading to dependency on emergency medical services and poorer health outcomes (Omiyefa, 2025). By integrating computerized cognitive behavioral therapy, video-based counseling, and mobile-supported applications, individuals with anxiety and depression in rural, under-resourced communities can access convenient and cost-effective behavioral health services (Sultana & Pagán, 2023). Evidence reveals that interventions delivered through remote care models reduce PHQ-9 and GAD-7 scores at rates comparable to traditional in-person treatment, suggesting that these approaches are effective alternatives for populations disproportionately affected by systemic and socioeconomic inequalities (Pardes et al., 2022). As research supporting technology-facilitated mental health care grows, registered nurses play a key role in delivering these services by assuming expanded responsibilities, including facilitating continuous monitoring and implementing interventions autonomously (Bulto, 2024). By embracing technology-assisted mental health services in underserved communities, clinicians and registered

nurses can foster a system that emphasizes equitable access to care and mental health promotion.

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