Remotely Delivered Collaborative Care Effectively Addresses Anxiety and Depression Among Rural Adults

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Key Findings

- Rural patients with mild, moderate, or severe anxiety experienced significant improvement in GAD-7 scores at 90- and 120-days
- Rural patients with mild, moderate, moderately severe, or severe depression experienced significant improvement in PHQ-9 scores and 90- and 120-days
- Dedicated Medicaid codes to cover collaborative care support expanded access to care

Statement of the Problem

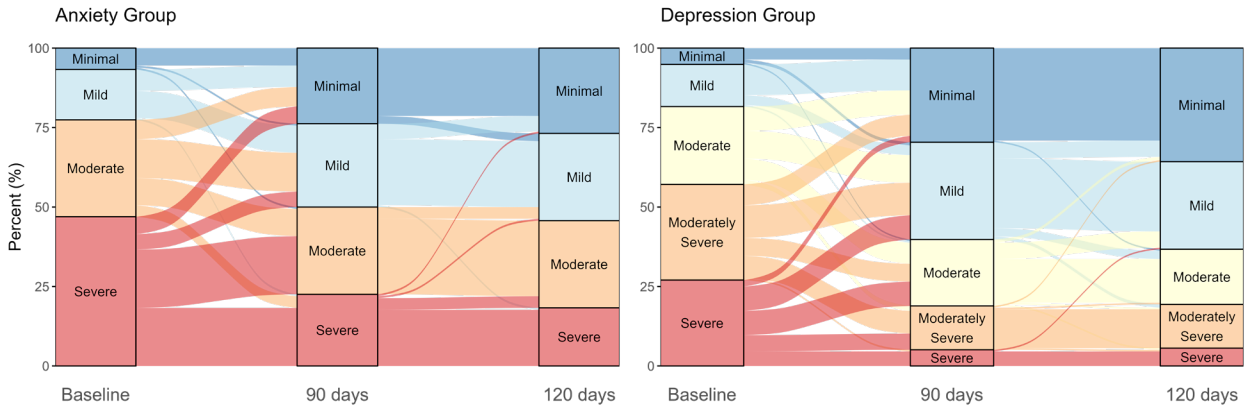
Lack of access to behavioral health treatment disproportionately impacts rural residents

The increase in the prevalence of mental health issues has continued to place strain on a behavioral health system that lacks resources to provide treatment to all who are in need.[1] In 2023, it is estimated that 32.3% of adults in the United States will experience depression and/or anxiety, however, less than half will receive the requisite behavioral health treatment to address their mental health.[2] The imbalance between demand and availability of care is daunting, even for the most resourced communities in the US.

In rural US communities, limited access to behavioral health care is even more problematic. Research suggests that up to 65% of non-metropolitan US counties are without psychiatrists,[3] and more than 60% of rural Americans reside in mental health provider shortage areas.[4] Tragically, suicide rates in rural areas have reached 17.32 per 100,000 population, a figure 25% greater than that in non-rural communities.[5,6] Telehealth has provided some relief nationally, but many rural residents face limited or unreliable internet connectivity,[7] preventing them from engaging in telehealth services. Expanding behavioral health services within healthcare settings may offer a solution to improve access in underserved areas, allowing patients to receive same-day access to evidence-based behavioral health treatment in collaboration with their trusted primary care provider.

Collaborative care is an evidence-based model to identify and treat patients with behavioral health conditions in healthcare settings, like primary care. Collaborative care is supported by the Center for Medicare and Medicaid Services (CMS) with specific and dedicated codes for collaborative care, encouraging adoption and supporting a systemic approach to behavioral health in primary care. The purpose of the current study is to describe the effectiveness of collaborative care, delivered via telehealth, to address anxiety and depression among rural patients.

Figure 1. Patient changes in anxiety and depression categories from baseline to 90 and 120 day assessments



Detailed Findings

Rural patients experienced significant improvements in anxiety and depression outcome measures following collaborative care

Among patients diagnosed with anxiety, 77% (127 out of 164 patients) met the criteria for moderate or severe anxiety based on a GAD-7 score of 10 or greater at baseline.[8] When patients with severe anxiety were assessed at 120-days, 65% (n=50) met the criteria for a reduced category of anxiety. Patients in the mild, moderate, and severe anxiety groups experienced significant improvements in mean GAD-7 scores at 90- and 120-days. In the group of patients with diagnosed depression, 82% (160 out of 196) met the criteria for moderate, moderately severe, or severe depression based on a PHQ-9 score of 10 or greater at baseline.[9] Patients in the moderately severe (n=44, 74.5%) and severe (n=44, 83%) depression groups progressed to a reduced category of depression when assessed at 90-days. Similar to patients with anxiety, those with the mild, moderate, moderately severe, and severe depression groups had significant improvements in mean PHQ-9 scores at 90- and 120-days. In an unpublished analysis, including rural and non-rural Concert Health patients, patients diagnosed with anxiety and depression experienced similar improvements in GAD-7 and PHQ-9 scores at both time points, but no formal comparison based on geography was conducted.

Despite higher baseline scores and different types of insurance, rural collaborative care patients experienced significant improvements in depression and anxiety outcomes

Rural patients diagnosed with anxiety had significantly higher GAD-7 scores (13.5(5.57) vs 11.9(5.08), p<0.001) at baseline and had a reduced frequency of enrollment in commercial insurance (43.5% vs 56.9%, p<0.001) compared to non-rural collaborative care patients with anxiety. Similarly, rural patients diagnosed with depression were less frequently enrolled in commercial insurance (38.5% vs 49.0%, <0.001) and had significantly higher baseline PHQ-9 scores (14.9(5.76) vs 13.6(5.64), p<0.001) compared to non-rural collaborative care patients with depression. Previous evaluation of collaborative care efforts support the outcomes of the current study, particularly among low-income rural residents with depression.[10]

Dedicated Medicaid collaborative care codes increase access to collaborative care

Most patients included in this study were from Arizona (n=133) and Missouri (n=198), providing an opportunity to examine access to collaborate care in two states with different regulatory environments. Arizona was among the first states to pass legislation allowing for Medicaid to cover collaborative care, a particularly important detail among rural residents who are more likely to be recipients of Medicaid than non-rural residents.[11] While in Missouri, access to collaborative care among rural residents is limited to those who receive care at health system(s) choosing to cover collaborative care because it is viewed as an effective treatment. Data from the current study suggests that rural Arizona residents had access to collaborative care via more than 20 unique healthcare providers compared to rural residents in Missouri who were limited to a single health system.

Patient clinical data from the Concert Health electronic system were retrieved to evaluate the effectiveness of collaborative care in rural health clinics. To be included in the current analysis, patients needed to be inactive, meaning their treatment episode had been completed, diagnosed with depression or anxiety, and have complete baseline, 90-day and 120-day screenings using the PHQ-9 and/or GAD-7 scales. Patients included in the analysis were enrolled in collaborative care between November 3, 2020 and May 3, 2023. Demographic data were limited to age, as gender and race information was not readily available.

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