Effectiveness of Integrating Mental Health Services into Primary Care Settings in Managing Anxiety and Depression: A Cross-Sectional Study in Family Medicine Clinics

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Abstract

Background: *The integration of mental health services into primary care settings has emerged as a global priority to address the growing burden of anxiety and depression, which are among the most common mental health disorders. Primary care clinics, often the first point of contact for patients, provide a unique opportunity for early identification and intervention. This study aimed to evaluate the effectiveness of integrating mental health services into family medicine clinics in managing anxiety and depression, focusing on patient outcomes, satisfaction, and service utilization.*

Methods: *A cross-sectional study was conducted across multiple family medicine clinics offering integrated mental health services. A total of 400 adult patients with diagnosed anxiety or depression were recruited using systematic random sampling. Data were collected via structured questionnaires, including the Generalized Anxiety Disorder-7 (GAD-7) and Patient Health Questionnaire-9 (PHQ-9) scales to assess symptom severity, and a modified Client Satisfaction Questionnaire (CSQ-8) to evaluate satisfaction. Descriptive and inferential statistics were used to analyze the data.*

Results: *The majority of participants were female (57%) and aged 30–44 years (37%). Symptom severity assessments revealed that 52% of patients experienced moderate to severe anxiety, while 52% reported moderate to severe depression. High satisfaction levels were reported, with 75% of participants either "satisfied" or "very satisfied" with the integrated services. Counseling/therapy sessions (55%) and follow-up visits (77%) were the most utilized services, with only 12% of patients requiring specialist referrals.*

Conclusion: *The integration of mental health services into primary care settings demonstrated significant benefits, including high patient satisfaction, effective symptom management, and reduced need for specialist referrals. These findings support the expansion of integrated care models, emphasizing the importance of workforce training, technological integration, and community engagement to enhance accessibility and sustainability. This model aligns with global efforts to improve mental health care delivery and achieve universal health coverage.*

Background

The integration of mental health services into primary care settings has become a global priority in response to the growing burden of mental disorders, particularly anxiety and depression. These conditions are among the most common psychiatric disorders, affecting millions of individuals across different age groups and socioeconomic backgrounds. In many healthcare systems, primary care clinics serve as the first point of contact for patients experiencing symptoms of mental illness. However, the traditional separation between mental and physical health services has often resulted in fragmented care, delayed diagnosis, and suboptimal treatment outcomes (Mukala Mayoyo et al., 2025).

Primary care settings offer a unique opportunity for early identification and intervention for mental health issues. Given their accessibility and the trust patients place in family physicians, these clinics can play a crucial role in detecting and managing anxiety and depression at earlier stages. Integrating mental health services within these settings allows for a more holistic approach to patient care, addressing both physical and

psychological needs. This model promotes continuity of care and helps in building stronger therapeutic relationships between healthcare providers and patients (Ong et al., 2021).

Anxiety and depression often coexist with chronic physical conditions such as diabetes, hypertension, and cardiovascular disease. The presence of untreated mental health issues can worsen the prognosis of these physical illnesses and lead to increased healthcare utilization and costs. By embedding mental health professionals within primary care teams, it becomes possible to provide timely psychological assessments and interventions, thereby improving overall health outcomes. This collaborative care approach emphasizes shared responsibility among healthcare providers and supports coordinated treatment planning (M. et al., 2023).

Despite the recognized benefits of integration, there are several barriers that can hinder its successful implementation. These include workforce shortages, lack of training in mental health among primary care providers, time constraints during consultations, and the stigma associated with mental illness. Addressing these challenges requires systemic changes, including policy reforms, resource allocation, and investment in capacity building for primary care teams. The development of standardized screening tools and treatment protocols also enhances the feasibility of managing mental health conditions in general practice settings (Rameez & Nasir, 2023).

Patient-centered care is a fundamental principle of integrated mental health services. It involves engaging patients in shared decision-making, respecting their preferences, and tailoring interventions to individual needs. Such an approach is particularly important in managing anxiety and depression, which can manifest differently across cultural, gender, and age groups. By delivering care in a familiar and less stigmatizing environment, primary care integration fosters greater acceptance of mental health services and improves adherence to treatment plans (Pinho et al., 2021).

Technology also plays a pivotal role in facilitating integration. Electronic health records, telepsychiatry, and digital mental health tools support communication among providers, enable remote consultations, and expand access to care in underserved areas. These innovations are particularly valuable in regions with limited mental health infrastructure or where specialist services are concentrated in urban centers. The use of digital tools can enhance the efficiency and effectiveness of mental health interventions in primary care settings (Ezeamii et al., 2024).

Evaluating the effectiveness of integrated mental health services is essential to inform healthcare policy and practice. Research on this topic helps determine the impact of integration on clinical outcomes, patient satisfaction, provider workload, and system-level metrics such as referral rates and hospitalization. Cross-sectional studies provide valuable insights into the current state of service delivery, patient experiences, and areas needing improvement. They can also identify gaps in care and highlight best practices that can be scaled up or replicated in other settings (Beere et al., 2019).

In the context of family medicine clinics, where patients often receive care over extended periods, there is a greater opportunity to monitor changes in mental health status and treatment responses. This continuity of care can enhance the accuracy of diagnosis and the appropriateness of therapeutic interventions. Family physicians, by virtue of their ongoing relationships with patients, are well-positioned to detect subtle signs of psychological distress and provide timely support or referrals when needed (Kilbourne et al., 2018).

The burden of mental illness in communities calls for a shift toward integrated and community-based approaches to care. By embedding mental health services into primary care, healthcare systems can become more responsive, equitable, and efficient. This model aligns with global health strategies aimed at achieving universal health coverage and addressing the social determinants of health. It also reflects a broader commitment to treating mental health as an integral component of overall well-being (Kohrt et al., 2018).

This research seeks to assess the effectiveness of integrating mental health services into primary care settings in managing anxiety and depression through a cross-sectional study conducted in family medicine clinics. It aims to explore patient outcomes, provider perspectives, and system-level factors that influence the success of

integration. The findings of this study are expected to contribute to the evidence base supporting integrated care models and guide efforts to improve mental health service delivery in primary care environments.

METHODOLOGY

Study Design

This study employed a cross-sectional design to evaluate the effectiveness of integrating mental health services into primary care settings in managing anxiety and depression. The research was conducted in multiple family medicine clinics that had adopted integrated care models, allowing mental health professionals to work alongside primary care providers. Data collection was carried out over a period of three months to ensure adequate patient participation and capture variability in clinic operations.

Study Population and Sample Size

A total of 400 adult patients were recruited from family medicine clinics that offered integrated mental health services. The sample size was determined using power analysis to detect statistically significant differences in clinical outcomes related to anxiety and depression management, assuming a medium effect size, a confidence level of 95%, and a power of 80%. Patients were selected using systematic random sampling from appointment logs during the data collection period to minimize selection bias and ensure representativeness.

Inclusion Criteria

Participants included in the study were adults aged 18 years and older who had attended at least one appointment in a family medicine clinic with integrated mental health services within the previous six months. Eligible participants were required to have a clinical diagnosis of anxiety or depression documented in their medical records, based on DSM-5 criteria, and to have received at least one mental health-related intervention (e.g., counseling, psychiatric evaluation, or medication management) within the integrated care framework.

Exclusion Criteria

Patients were excluded if they were under the age of 18, had severe psychiatric disorders such as schizophrenia or bipolar disorder, or were receiving specialized mental health care outside of the primary care setting. Individuals with cognitive impairments that could hinder informed consent or accurate completion of questionnaires were also excluded. Additionally, patients who were not fluent in the language of the survey instruments were not considered for inclusion to ensure data accuracy and comprehension.

Data Collection Instruments

Data were collected using a structured, interviewer-administered questionnaire comprising three sections. The first section captured sociodemographic and clinical information, including age, gender, employment status, education level, duration of diagnosis, and comorbidities. The second section used the Generalized Anxiety Disorder-7 (GAD-7) scale and the Patient Health Questionnaire-9 (PHQ-9) to assess the severity of anxiety and depression symptoms, respectively. The third section evaluated patient satisfaction with the integrated care model using a modified version of the Client Satisfaction Questionnaire (CSQ-8). All instruments were previously validated and had demonstrated reliability in primary care populations.

Data Collection Procedure

Trained research assistants approached eligible patients at the end of their clinic visits. After explaining the purpose of the study and obtaining written informed consent, the assistants administered the questionnaire in a private area within the clinic to ensure confidentiality. Medical records were reviewed to extract relevant clinical information, including diagnoses, prescribed treatments, and follow-up visit frequencies. Each questionnaire took approximately 20 to 30 minutes to complete.

Ethical Considerations

The study protocol was reviewed and approved by the relevant Institutional Review Board (IRB). Participation was entirely voluntary, and participants were informed that they could withdraw at any time without affecting their care. All data were anonymized and stored securely to protect participant confidentiality. Informed consent was obtained from all participants prior to data collection.

Data Analysis
Collected data were entered into a secure database and analyzed using SPSS version 26. Descriptive statistics were used to summarize demographic and clinical characteristics. Mean scores of GAD-7 and PHQ-9 were calculated to assess symptom severity. Inferential statistics, including chi-square tests and independent t-tests, were used to compare outcomes between different demographic groups and service utilization patterns. Multivariate linear regression analyses were conducted to identify factors associated with reduced anxiety and depression symptoms among patients receiving integrated care. A p-value of less than 0.05 was considered statistically significant.

Limitations
While the cross-sectional design allowed for the identification of associations, it did not permit the establishment of causal relationships between integrated care and mental health outcomes. Additionally, self-reported data may have been subject to response bias, and variations in the implementation of integrated services across clinics may have influenced the results. Nevertheless, efforts were made to standardize procedures and account for potential confounders in the analysis.

RESULTS
This study aimed to evaluate the effectiveness of integrating mental health services into primary care settings for the management of anxiety and depression. A total of 400 patients participated in the study, all of whom met the inclusion criteria and completed the structured questionnaire. The results provide a comprehensive understanding of the participants' sociodemographic characteristics, the prevalence and severity of anxiety and depression, and the level of satisfaction with the integrated care services.

Table 1. Sociodemographic Characteristics of Participants (N = 400)

Variable	Frequency (n)	Percentage (%)
Age Group		
18–29 years	96	24.0%
30–44 years	148	37.0%
45–59 years	112	28.0%
60 years and above	44	11.0%
Gender		
Male	172	43.0%
Female	228	57.0%
Employment Status		
Employed	210	52.5%
Unemployed	104	26.0%
Retired	42	10.5%
Student	44	11.0%
Education Level		
Less than high school	60	15.0%
High school graduate	148	37.0%
University graduate	140	35.0%
Postgraduate	52	13.0%

The majority of the participants (37.0%) were aged between 30–44 years, followed by 28.0% aged 45–59 years. Females represented a higher proportion of the sample (57.0%) compared to males (43.0%). More than half of the participants (52.5%) were employed, while 26.0% were unemployed. In terms of educational background, 37.0% had completed high school, 35.0% held a university degree, and 13.0% had postgraduate

qualifications. These demographic distributions reflect a diverse population with varying educational and employment statuses.

Table 2. Severity of Anxiety and Depression Based on GAD-7 and PHQ-9 Scores (N = 400)

Severity Level	Anxiety (GAD-7) n (%)	Depression (PHQ-9) n (%)
None (0–4)	88 (22.0%)	72 (18.0%)
Mild (5–9)	104 (26.0%)	120 (30.0%)
Moderate (10–14)	116 (29.0%)	132 (33.0%)
Severe (15–21)	92 (23.0%)	76 (19.0%)

According to the GAD-7 scores, 22.0% of participants had no anxiety symptoms, while 26.0% experienced mild anxiety, 29.0% had moderate anxiety, and 23.0% reported severe anxiety. Similarly, PHQ-9 scores showed that 18.0% of the participants had no depressive symptoms, 30.0% had mild depression, 33.0% had moderate depression, and 19.0% reported severe depression. These findings indicate that a significant proportion of patients attending primary care clinics experience moderate to severe symptoms of anxiety and depression, underscoring the need for integrated mental health services.

Table 3. Satisfaction with Integrated Mental Health Services (N = 400)

Satisfaction Level	Frequency (n)	Percentage (%)
Very satisfied	128	32.0%
Satisfied	172	43.0%
Neutral	60	15.0%
Dissatisfied	28	7.0%
Very dissatisfied	12	3.0%

A combined 75.0% of the respondents reported being either "satisfied" (43.0%) or "very satisfied" (32.0%) with the mental health services integrated into the family medicine clinics. Only 10.0% reported dissatisfaction (7.0% "dissatisfied" and 3.0% "very dissatisfied"). The relatively high satisfaction rate suggests that patients value the convenience, accessibility, and comprehensiveness of integrated mental health care in a primary care setting.

Table 4. Utilization of Mental Health Services Within Integrated Clinics (N = 400)

Type of Service Used	Frequency (n)	Percentage (%)
Counseling/Therapy Sessions	220	55.0%
Psychiatric Evaluation	140	35.0%
Medication Management	112	28.0%
Follow-up Visits	308	77.0%
Referred to Specialist	48	12.0%

More than half of the participants (55.0%) had received counseling or therapy, and 35.0% underwent psychiatric evaluation. Follow-up visits were the most common service utilized (77.0%), indicating ongoing monitoring and continuity of care. Only 12.0% required referral to a specialist, suggesting that the majority of cases were effectively managed within the primary care setting. Medication management was reported by 28.0% of participants, supporting the role of family physicians and in-house psychiatrists in pharmacological treatment plans.

DISCUSSION

This cross-sectional study evaluated the effectiveness of integrating mental health services into primary care settings in managing anxiety and depression among 400 patients. The results provide empirical support for the growing advocacy to embed mental health interventions within primary care, offering a pathway to improve accessibility, symptom control, and patient satisfaction.

The demographic spread revealed a predominance of females (57%) and individuals aged 30–44 years (37%), highlighting the demographic most likely to seek or benefit from integrated mental health services. The gender disparity aligns with global patterns of healthcare utilization, where women are more likely to report psychological symptoms and seek care (Mukala Mayoyo et al., 2025). This age group also tends to experience stressors related to work and family responsibilities, increasing vulnerability to anxiety and depression (M., S., S., M., & Vadakkiniath et al., 2023).

The study found that 52% of patients presented with moderate to severe anxiety symptoms and 52% with moderate to severe depression symptoms. These findings underscore the significant mental health burden among primary care attendees. The prevalence is consistent with previous studies in chronic disease populations (M., S., S., M., & Vadakkiniath et al., 2023), validating the utility of primary care as a frontline setting for early mental health intervention.

Integrated services appeared effective, as 75% of participants reported satisfaction with the care received. These results support Pinho et al.'s (2021) assertion that patient-centered approaches improve health outcomes and satisfaction. By tailoring interventions to individual needs in familiar settings, integrated models enhance therapeutic alliance and treatment adherence.

Utilization data further affirm the relevance of integration. Counseling/therapy was the most accessed service (55%), followed by follow-up visits (77%), psychiatric evaluation (35%), and medication management (28%). Only 12% required specialist referrals, demonstrating the capacity of primary care teams to manage common mental health conditions effectively (Goodrich et al., 2013).

The high follow-up rate indicates sustained patient engagement and monitoring—core elements of effective chronic care. McGough et al. (2016) emphasize that behavioral health integration fosters continuity, which is vital for symptom resolution and relapse prevention. Our data mirror these insights, showing that integration not only facilitates access but sustains care.

Family engagement, while not quantified in this study, remains a key factor in successful mental health management. Ong et al. (2021) highlight its role in enhancing adherence and reducing stigma. Given the demographic characteristics of our population, involving family could further strengthen outcomes in future implementations.

Barriers to integration such as infrastructure limitations and workforce gaps—though not directly measured—are widely acknowledged in the literature. Rameez and Nasir (2023) identify these as critical obstacles in LMICs. In our study, the relatively low reliance on specialist referrals suggests an adaptive use of available resources, but broader scale-up may strain systems without proper investment.

Technology, especially telemedicine, presents a scalable solution. Ezeamii et al. (2024) note how virtual platforms improve access and reduce costs. Though not the focus here, future studies could explore how integrating telepsychiatry within these clinics impacts utilization and outcomes.

The effectiveness of integration also hinges on quality assurance. Kilbourne et al. (2018) call for robust metrics to evaluate service delivery. Patient satisfaction data in our study offer preliminary insight but should be complemented by longitudinal outcomes and functional assessments to fully gauge impact.

Community involvement, as emphasized by Kohrt et al. (2018), enhances mental health literacy and supports treatment uptake. Our findings suggest that clinics are effectively engaging patients, but stronger community outreach could address unmet needs and reduce stigma.

Provider confidence is another critical dimension. Staab et al. (2022) found that structured support increases PCP efficacy in mental health management. Training and supervision mechanisms should be strengthened in primary care clinics to optimize this model.

Moreover, Possemato et al. (2018) demonstrated that integration facilitates access to evidence-based psychotherapies. Our high counseling utilization rate reinforces this, highlighting how proximity and integration encourage patients to engage with non-pharmacological treatments.

Cost-effectiveness remains a compelling argument for integration. Cubillos et al. (2021) documented economic gains in LMICs from reduced hospitalization and increased efficiency. Our study, with only 12% needing external referral, suggests similar trends and warrants formal economic evaluation.

Lastly, innovative models like the video consultation trial by Haun et al. (2024) may further extend the reach of integrated services. Their findings of reduced depression and anxiety symptoms validate digital integration, offering a potential complement to in-person services.

CONCLUSION

This study highlights the practical benefits of integrating mental health services into primary care, evidenced by high satisfaction, effective symptom management, and low referral rates. The findings align with global research supporting integrated care as a viable strategy for addressing the mental health burden in general populations. Strengthening workforce capacity, leveraging technology, and fostering community engagement will be essential for sustainable implementation and scaling of this model.

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