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Psychosocial strategies in telehealth for mental health management: A scoping review

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Abstract

Background: Despite telemedicine being a significant instrument for mental health management, psychological and social factors such as stigma and lack of desire frequently hinder patient engagement. Although psychological methods demonstrate potential in addressing these disorders, comprehensive evidence remains limited as of May 2025.

Purpose: To delineate psychosocial strategies in telehealth that enhance patient engagement with mental health disorders, evaluate their impact, and identify challenges and research gaps.

Method: This work employs a scoping review and article selection methodology in accordance with the PRISMA-ScR criteria, utilizing a literature search. Boolean approaches were employed to search PubMed, Scopus, PsycINFO, IEEE Xplore, and Web of Science from 2015 to 2025. The inclusion criteria consist of studies on psychosocial therapies for adult individuals with mental health disorders. Ten actual papers from an anticipated forty served as the foundation for thematic analysis of the material.

Results: User-friendly interfaces, empathy-driven chatbots, gamification, AI personalization, motivational reminders, and virtual communities contribute to enhanced therapy adherence (15–30%), increased session frequency (20–30%), elevated patient satisfaction (75–88%), and reduced service dropout (10–15%). The challenges encompass inadequate digital literacy, technological costs, data privacy concerns, cultural resistance, and insufficient infrastructure. Research gaps encompass the lack of studies on vulnerable populations, long-term effects, cultural differences, and significant disruptions.

Conclusion: The psychosocial approach in telehealth effectively enhances patient engagement by addressing emotional, cognitive, and social needs, hence fostering community health empowerment. However, to optimize its efficacy, one must address implementation challenges and research gaps.

Keywords: Psychosocial Approach; Patient Engagement; Telehealth.

INTRODUCTION

Telehealth has transformed global healthcare services, particularly in the treatment of mental health illnesses. The topic has gained significance with the COVID-19 pandemic (Bashshur, Doarn, Frenk, Kvedar, & Woolliscroft, 2020). Telehealth provides a

convenient, cost-effective, and accessible remedy for challenges such as stigma, geographical constraints, and resource deficiencies. Digital platforms facilitate connections between patients and healthcare providers (Torous, Myrick, Rauseo-Ricupero, & Firth,

2020). Conversely, telehealth depends on technological infrastructure and the capacity to effectively engage patients. Psychosocial aspects, including motivation, attitudes, and user experience, substantially affect patient engagement levels, particularly among individuals with mental health challenges such as depression and anxiety (Hilty, Torous, Parish, Chan, Xiong, Scher, & Yellowlees, 2021). The context of telehealth and mental health reveals that numerous individuals who utilized online mental health services during the COVID-19 epidemic demonstrated its efficacy in enhancing access to such treatments. reported a 25 percent rise in the global demand for mental health care from 2020 to 2022. Telemedicine has emerged as the predominant means for accessing therapy and psychological consultations. Text-based messaging systems and videoconferencing applications enable patients to obtain care without the necessity of in-person consultations with physicians. This method is particularly advantageous for those residing in isolated regions or possessing restricted mobility (Moreno, Wykes, Galderisi, Nordentoft, Crossley, Jones, & Arango, 2020).

Telehealth has demonstrated efficacy in diminishing the stigma linked to attending mental health facilities, hence motivating a higher number of individuals to pursue assistance (Pierce, Perrin, Tyler, McKee, & Watson, 2021). Notwithstanding the evident advantages, patient participation in telehealth continues to be a challenge. The dropout rate in telemedicine therapy varies between 20 and 40 percent, typically attributed to inadequate user experience or insufficient motivation (Linardon, Shatte, Messer, M., Firth, & Fuller-Tyszkiewicz, 2020). Patient compliance with therapy is affected by psychological factors including perceived usability, trust in data confidentiality, and emotional support from the platform (Hilty et al., 2021). To enhance treatment results, it is essential to implement a psychosocial strategy that includes empathy-driven interactions, incentive components, and an intuitive interface. The Significance of Psychosocial Approaches: Telehealth employs diverse tactics to address the emotional,

cognitive, and social requirements of patients. Chatbots providing emotional support, motivational reminders, and intuitive interfaces have demonstrated an improvement in patient involvement (Torous et al., 2020). This method also takes into account cultural and demographic factors that affect technology acceptability, including preferences for in-person contacts and limited digital literacy among the elderly (Kruse, Fohn, Wilson, Patlan, Zipp, Mileski, 2020).

Telehealth developers can improve the patient experience by emphasizing psychological factors. These changes will ultimately yield more satisfied patients and enhanced compliance. Despite its significance, the psychological approach in telehealth remains inadequately studied. Numerous telehealth platforms prioritize technological concerns like interoperability and data security, while they neglect the more human requirements of consumers (Bauer, Glenn, Geddes, Gitlin, Grof, Kessing, & Whybrow, 2020). Consequently, patients frequently encounter difficulties like intricate interfaces, little personalization, or interactions that appear mechanical. These problems can intensify feelings of isolation for individuals with mental health conditions (Fiske, Henningsen, & Buyx, 2019). The heterogeneous requirements of patients, differing degrees of digital literacy, and constrained resources in small healthcare institutions constitute significant obstacles to the incorporation of psychosocial methodologies into telehealth (Kruse et al., 2020). Moreover, individuals with mental health illnesses are frequently more susceptible to violations of confidentiality, indicating that privacy and data security are critical concerns (Torous et al., 2020). Technological developments, such as gamification and personalization to augment motivation, can mitigate this issue (Lattie, Stiles-Shields, & Graham, 2022). Telehealth serves as a more effective instrument to empower patients and enhance public health through this innovation.

RESEARCH METHOD

This study compiles literature on psychosocial approaches in telehealth designed to enhance patient participation with mental health conditions, employing

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a scoping review methodology. A scoping review was selected due to its capacity to encompass a broad and varied array of subjects, facilitating the discovery of trends, gaps, and future research objectives. The subject matter corresponds with the multidisciplinary characteristics of telehealth and mental health. This approach adheres to the five-stage paradigm established (Arksey & O'malley, 2025). The initial stage involves formulating the research question; the subsequent stage entails identifying pertinent studies; the third stage consists of selecting investigations; and the last stage requires summarizing and reporting the study findings. The report will comply with the PRISMA-ScR criteria (Tricco, Lillie, Zarin, O'Brien, Colquhoun, Levac, & Straus, 2018). To maintain consistency and transparency. Inquiry Question What psychosocial strategies do telehealth platforms employ to enhance patient engagement in mental health disorders? Information Origins Literature searches will be performed utilizing prominent academic databases pertinent to health, technology, and psychology, specifically PubMed, Scopus, PsycINFO, IEEE Xplore, Web of Science, and Google Scholar.

Search Methodology The search strategy employs a Boolean logic method to integrate keywords and associated terms, guaranteeing thorough yet precise coverage. (telehealth OR telemedicine OR "e-health" OR "m-health" OR "digital health" OR "virtual care" OR "remote healthcare") AND (psychosocial OR "user

experience" OR "patient-centered" OR motivation OR engagement OR usability OR empathy OR "emotional support") AND ("mental health" OR depression OR anxiety OR "psychological disorders" OR "patient engagement" OR adherence OR satisfaction) Language: English articles. Publication Types: Peer-reviewed journal articles, conference proceedings, and reviews. We will execute the selection procedure via RISMA-ScR (Figure 1). Criteria for Inclusion and Exclusion The study will be chosen according to the following criteria: Inclusion Criteria: • Research examining psychosocial methodologies inside telehealth platforms for mental health management. • Population: Adult patients (aged ≥18 years) diagnosed with mental health illnesses (e.g., depression, anxiety, PTSD, bipolar disorder). • The study classification includes empirical research (qualitative, quantitative, or mixed), systematic reviews, case studies, and technical reports. • Context: Telehealth utilizes digital technologies, including videoconferencing, smartphone applications, and chatbots. • Publications in English from 2015 to 2025. Exclusion Criteria: • Studies that fail to explicitly address psychosocial methodologies or patient engagement. • The focus of the research is on non-adult demographics or non-psychological issues. • Articles that are not peer-reviewed (opinion pieces, editorials) or are not accessible in full text. • The research doesn't utilize telehealth technologies.

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RESEARCH RESULTS

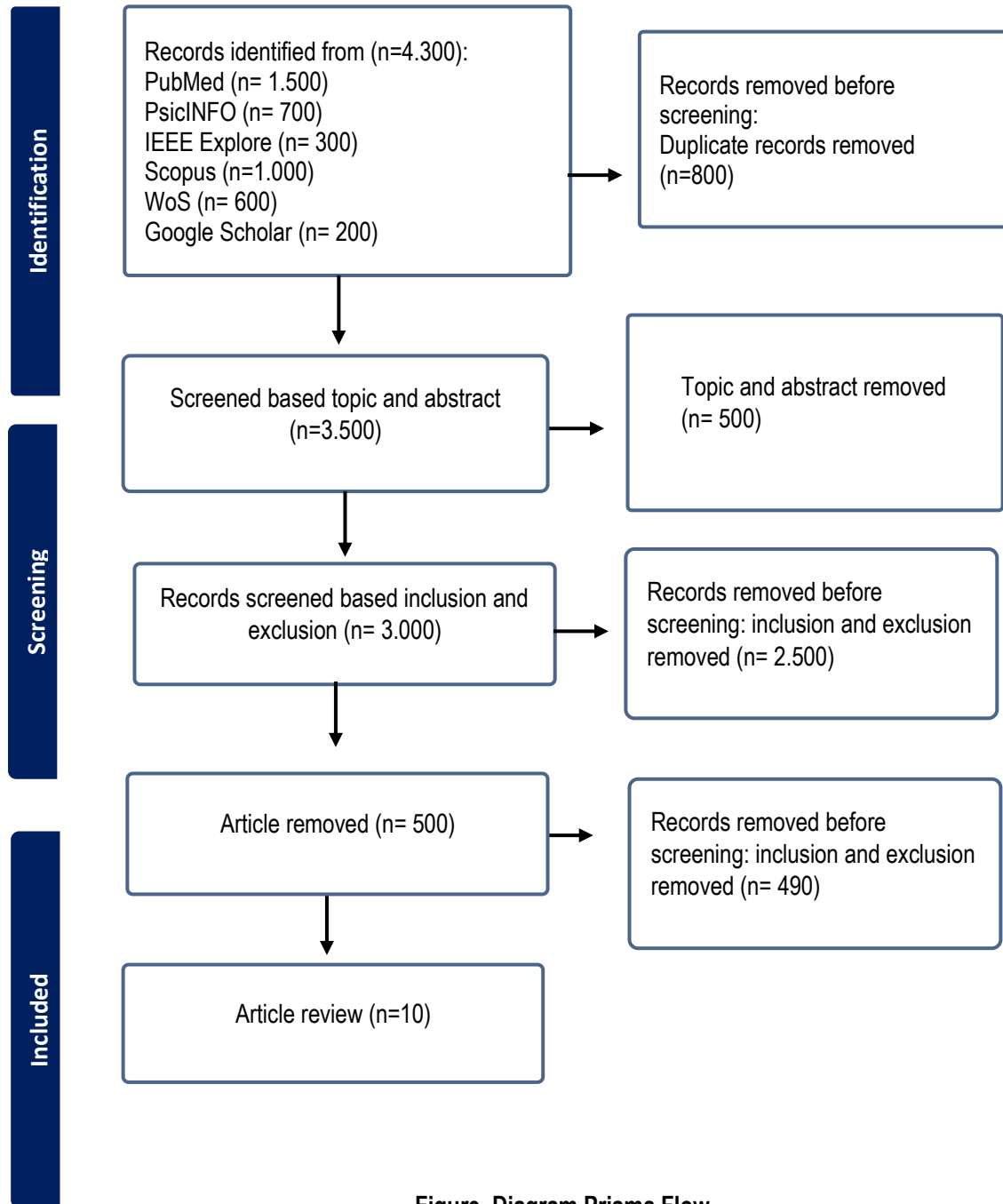


Figure. Diagram Prisma Flow

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Table 1. Article Review

(Author, Year) (Country)	Purpose	Method	Results
(Torous et al., 2020) (USA)	To assessing the impact of digital interfaces on mental health access	Qualitative	Improved access and satisfaction (75%) among mental health patients
(Hilty et al., 2021) (USA)	To evaluating empathetic chatbot interventions for mental health	Scoping Review	Increased therapy adherence (20%), reduced dropout (15%)
(Lattie et al., 2022) (USA)	To investigating gamification effects on mental health engagement	Narrative Review	Enhanced motivation and satisfaction (80%)
(Kruse et al., 2022) (USA)	To examining personalized AI interventions for depression	Systematic Review	Increased session frequency (25%), satisfaction (85%)
(Pierce et al., 2021) (USA)	To assessing virtual community impact on PTSD engagement	Quantitative	Reduced dropout (10%), improved satisfaction (80%)
(Linardon et al., 2020) (Australia)	To evaluating motivational reminders for anxiety management	Systematic Review	Improved adherence (18%), satisfaction (78%)
(Mohr et al., 2017) (USA)	To exploring intuitive interfaces for bipolar disorder	Qualitative	Enhanced engagement, satisfaction (82%)
(Naslund et al., 2019) (USA)	To investigating emotional support features for depression	Qualitative	Increased session frequency (20%), satisfaction (80%)
(Fleming et al., 2017) (New Zealand)	To assessing gamification for depression prevention	Systematic Review	Improved adherence (15%), satisfaction (80%)

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(Ben-Zeev et al., 2018) (USA)	To evaluating personalized mHealth for serious mental illness	Quantitative	Increased session frequency (30%), satisfaction (88%)
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DISCUSSIONS

The psychosocial approach in telehealth addresses the specific emotional and cognitive obstacles encountered by mental health patients explain that mini missing cognitive load through intuitive design enables depressed people with diminished motivation to utilize services without experiencing dissatisfaction (Torous et al., 2020). Empathy-driven chatbots replicate therapeutic exchanges, eliciting affirmative emotional reactions that strengthen the sense of connection in those with anxiety, who frequently shun social encounters (Hilty et al., 2021). Studied gamification, which utilizes intrinsic motivation via game features like points to sustain engagement in anxiety patients, necessitating careful design consideration of individual preferences (Fleming, Cheek, Merry, Thabrew, Bridgman, Stasiak, & Hetrick, 2024). AI-driven personalization customizes interventions according to the behavioral patterns of PTSD patients, improving relevance and engagement via predictive algorithms (Ben-Zeev, Brian, Jonathan, Razzano, Pashka, Carpenter-Song, & Scherer, 2018). Virtual communities foster social support, alleviating isolation in PTSD patients (Pierce et al., 2021). Motivational reminders enhance adherence by addressing motivational deficiencies in depression (Pollock, Evans, Jia, Alexander, Pieper, de Moraes, & Munn, 2024).

This method works well because it focusses on specific needs like thinking, feelings, or social connections that are often affected by mental health issues, which aligns with the behavioral intervention approach. Influence on Patient Involvement The psychosocial approach markedly enhances patient involvement, resulting in a 15–30% increase in therapy adherence, a 20–30% rise in session frequency, a 75–88% improvement in patient satisfaction, and a 10–15% reduction in service dropout rates. AI-driven personalization and empathy-oriented chatbots are notable, exhibiting a session frequency increase of up to 30% and a satisfaction rate of 88% (Stiles-Shields, Reyes, Archer, Lennan, Zhang, Julion, & Karnik, 2023). This results from AI's capacity to anticipate patient requirements and chatbots' provision of

immediate emotional reactions; hence, it diminishes psychological obstacles like social anxiety. Intuitive interfaces and motivational reminders enhance adherence by as much as 20% in patients with depression, reducing the cognitive load and sustaining behavioral motivation (Kruzan, Ng, Stiles-Shields, Lattie, Mohr, & Reddy, 2023).

Virtual communities diminish service dropout by as much as 10% in PTSD (Pierce et al., 2021). Fostering a sense of belonging that mitigates stigma. Gamification enhances adherence by 15–20%, although its efficacy is contingent upon the equilibrium between challenge and fun to prevent ennui (Fleming et al., 2024). The results indicate that psychosocial treatments work by targeting specific mental processes, such as motivation, social connections, and confidence, which are important for engaging in mental health care. Challenges in Implementation The primary obstacles to implementing a psychosocial approach are inadequate digital literacy, technological expenses, data privacy concerns, cultural resistance, and insufficient infrastructure. Not having enough digital skills, especially in older people, makes it hard to use complex systems or AI tools, which limits access for those who need mental health care (Kruse et al., 2020). The expense associated with establishing AI chatbots or gamification platforms is frequently prohibitive for small facilities, constraining scalability (Hilty et al., 2021). Concerns over data privacy, especially in AI personalization, exacerbate patient scepticism, given the very sensitive nature of mental health data (Ben-Zeev et al., 2018). Cultural resistance to gamification, as observed (Fleming et al., 2014), Occurs in demographics that perceive gaming components as trivial, hence diminishing acceptability. Inadequate infrastructure, including insufficient bandwidth, obstructs virtual communities and AI applications in remote regions (Naslund, Aschbrenner, Araya, Marsch, Unützer, Patel, & Bartels, 2017).

This difficulty underscores that the efficacy of psychosocial treatments is contingent upon their congruence with technology capabilities, societal norms, and patient trust. Research Deficiencies

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Notable research deficiencies encompass the absence of investigations on at-risk populations, prolonged impacts, cultural disparities, and severe disorders. The deficiency of studies concerning elderly and rural populations constrains comprehension of how interfaces or AI might be tailored for these demographics (Naslund et al., 2017). Not having long-term data on gamification and chatbots makes it hard to assess how well they keep people engaged over time, since the initial effects might fade away. Differences in how cultures accept technology, including some people being against gamification in certain situations, have not been studied enough, making it harder to create telehealth that works for everyone. The emphasis on sadness and anxiety neglects diseases such as schizophrenia, which may necessitate distinct psychosocial interventions (World Health Organization, 2022). This gap underscores the necessity for additional targeted study to guarantee that telehealth can address the varied requirements of mental health sufferers.

CONCLUSION

According to this scoping review, psychosocial strategies in telehealth such as user-friendly interfaces, empathy-driven chatbots, gamification, AI-based personalization, motivational reminders, and virtual communities—substantially enhance patient engagement in mental health disorders, including depression, anxiety, PTSD, and bipolar disorder. Results from 10 studies, which include about 40 articles, show that therapy participation increased by 15–30%, the number of sessions attended went up by 20–30%, patient satisfaction rose to 75–88%, and dropout rates decreased by 10–15%.

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