

Technology-Enabled Crisis Care for Youth

Bridging the Gap



Pamela Hoffman, MD^{a,*}, Ujjwal Ramtekkar, MD, MBA^b

KEYWORDS

- Mental health care • Youth • VR therapy • CDS • mHealth apps • Chatbots
- Telehealth • Artificial intelligence

KEY POINTS

- **Technological Integration in Mental Health Care:** RPM, telehealth, mHealth apps, clinical decision support, and AI enhance accessibility and effectiveness of youth mental health crisis care.
- **Digital Infrastructure in Crisis Care:** Effectively integrating digital tools into youth crisis care requires stakeholder trust, evidence-based standards, standardized protocols, automation, regulatory compliance, and defined ethical ownership.
- **Telepsychiatry Across Settings:** Settings including emergency departments, outpatient clinics, and schools utilize telepsychiatry to offer real-time assessments, risk evaluations, and therapeutic interventions.
- **Challenges in Implementation:** Key challenges include regulatory compliance, data privacy concerns, technological limitations, and the need for interoperability across systems and jurisdictions.
- **Future Directions:** Focus on interoperability, integrated digital health systems, and comprehensive safety protocols to ensure continuous, personalized care across the entire patient journey.

INTRODUCTION/HISTORY/DEFINITIONS/BACKGROUND

In the context of the ongoing workforce shortage and the increasing need for support in mental health care, technology has been a cornerstone in bridging gaps in care delivery for youth experiencing crises. **Table 1** defines and summarizes various technologies used in mental health for children and adolescents. The progression from basic telephone use for distant care to sophisticated digital health platforms marks a

^a Department of Child Psychiatry, Yale Child Study Center, 230 South Frontage Road SHM I-179, New Haven, CT 06513, USA; ^b Department of Psychiatry, University of Missouri Columbia, 1 Hospital Drive, Columbia, MO 65201, USA

* Corresponding author.

E-mail address: pamela.hoffman@yale.edu

Abbreviations	
AI	artificial intelligence
CBT	cognitive behavioral therapy
CDS	clinical decision support systems
ED	emergency department
EHR	electronic health record
mHealth apps	mobile health applications
RPM	remote patient monitoring
VR	virtual reality

Table 1 Technology used in mental health for youth in crisis		
Name	Definition	Example
Telephone support	Use of telephone technology to provide distant care and support for patients.	Calling patients for check-ins or crisis management.
Telehealth	Delivery of health care services using digital communication technologies, both synchronous and asynchronous.	Video consultations with mental health professionals.
RPM	Continuous monitoring of patients' symptoms and conditions using digital tools between sessions.	Wearable devices tracking mood changes or sleep patterns.
mHealth apps	Applications on mobile devices aimed at offering support, coaching, and strategies for mental health management.	Apps providing CBT exercises or mindfulness practices.
Digital therapeutics	Digital systems used to support patient's treatment journey by improving engagement and health outcomes.	Programs providing interactive therapy sessions online.
AI	Advanced technology used to optimize clinical documentation and reduce administrative burden.	AI-driven transcription of clinical sessions.
CDS	Technology that assists clinicians in making informed decisions by identifying patient data trends.	Systems recommending treatment adjustments based on data.
VR Therapy	Use of VR to create immersive environments for therapeutic interventions.	VR scenarios for exposure therapy in anxiety treatments.
Chatbots	Automated conversational agents providing mental health support and resources.	Chatbots offering 24/7 support and directing users to resources.
Online support groups	Digital forums or platforms where patients can join support communities for mental health.	Online communities for sharing experiences and getting peer support.

significant evolution. Technological advances have aimed to extend the reach and effectiveness of mental health professionals in several ways. These include support or enhancement during a clinical session and scaffolding continuity of care in between sessions or in crisis.

During a clinical session, several different types of technology may be employed to enhance the visit. Telehealth facilitates real-time synchronous interventions.¹ During individual sessions, virtual reality (VR) therapy provides effective immersive environments for various treatments like exposure therapy or post traumatic stress disorder (PTSD).² Currently, clinical decision support systems (CDS) leverage technology to identify trends and significant data points in patient records that might otherwise go unnoticed.³ This enables a more informed approach to patient management, especially when dealing with complex psychiatric conditions. Additionally, artificial intelligence (AI) and advanced technologies are revolutionizing clinical documentation, optimizing note-taking, and reducing the administrative burden on providers, thereby allowing them to focus more on patient care.⁴

Patients may need guidance and support outside scheduled clinical settings. To facilitate continuity in between sessions, especially when crises may occur between sessions, various technologies may be considered. Remote patient monitoring (RPM) enables symptom tracking between sessions, while asynchronous telehealth allows for expert evaluation and assessment not necessarily in real-time.^{1,5} Mobile health applications (mHealth apps) have become instrumental in providing support and coaching during periods when professional care is not immediately accessible. Digital therapeutics have demonstrated their value in enhancing patient engagement and measurable health outcomes.^{6,7} Therapy chatbots offer 24/7 crisis support, and online support groups create communities for peer support and shared experiences.^{8,9} Together, these advancements contribute to a more accessible, interactive, and supportive mental health care system for youth.

Technology Across the Care Continuum

Technology has permeated every aspect of psychiatric crisis care for youth, from initial assessment to postcrisis follow-up. One example of the use of technology across the crisis continuum is electronic patient-reported outcome measures, which collect quantifiable data to gauge risk levels and support decision-making across various care settings.¹⁰ Another example is telehealth, encompassing both synchronous and asynchronous modalities, which enhances accessibility to care and the efficiency of crisis assessment and management.¹¹ Whether through audio/video calls or audio-only interactions, technology bridges geographic and logistical gaps between patients and providers.¹² The following sections mirror the articles in this edition to describe different aspects of the care continuum and how technology can be used to enhance care and outcomes.

EMERGENCY DEPARTMENT OBSERVATION AND STABILIZATION

In the landscape of children's hospitals, emergency department (ED) use telepsychiatry to conduct real-time psychiatric evaluations, reassessments, and disposition planning for youth in crisis. Through video consultations, clinicians perform comprehensive diagnostic and risk assessments, confirming the availability of emergency resources and using structured electronic templates to document crucial information such as suicide and violence risk, protective factors, and care level determinations. Large pediatric systems have rapidly adopted these workflows, connecting ED staff, consulting

psychiatrists, and community providers through shared electronic records, secure messaging, and standardized order sets.¹³

Crisis Outpatient Clinics

Crisis outpatient clinics provide short-term, scheduled follow-ups for youths postcrisis who are not at immediate risk. Typically following ED visits, mobile crisis encounters, or school-based crises, these clinics use video visits for both psychiatric and therapy sessions. At intake, electronic symptom and risk scales are employed, and safety plans are updated across several visits through patient portals. Secure messaging facilitates brief check-ins, addressing medication questions and early detection of symptom deterioration between appointments.¹¹ Additionally, app-based cognitive behavioral therapy (CBT) modules are integrated into treatment plans, with patients expected to complete digital exercises and review them during telehealth follow-ups.¹⁴

Rapid Access Clinics/Bridge Clinics

Rapid access or bridge clinics serve as high-priority, short-term follow-up venues for youths exiting the ED, inpatient units, or intensive crisis services. These clinics often schedule the first telehealth visit within days of discharge, supported by automated digital reminders, online preregistration, and previsit electronic risk and symptoms screens. Technology is used to focus on risk level and stabilization, medication optimization, and finalizing safety plans. Digital tools such as apps and questionnaires in patient portals track mood and safety daily, while shared electronic health record (EHR) dashboards and tools help monitor high-risk youth and coordinate their transition via warm handoffs to other levels of care.^{14,15}

Behavioral Health Urgent Care

Behavioral health urgent care centers use telepsychiatry and other digital tools to extend on-site capacity, providing same-day or after-hours specialist input. Digital intake processes, including tablet-based screenings and integrated electronic assessments, adhere to standards for structured evaluations and documentation across settings.¹⁶ Urgent care teams use telehealth consultations and electronic decision support to direct youths to appropriate services such as mobile crisis teams, emergency departments, or rapid access clinics, effectively operationalizing the crisis continuum.

School Crisis Centers

School-based telepsychiatry programs link students in crisis from school health offices or designated spaces to mental health specialists. Teleconsultation to schools is an established use case, emphasizing developmental formulation, family engagement, and coordination with external providers. School systems may employ web-based suicide risk screening, secure messaging platforms, and shared digital safety plans to link school staff, caregivers, and community partners during crisis response.^{17,18}

Mobile Crisis Response/Prehospital, Pamedic, and Crisis Intervention Programs

Mobile crisis teams employ tablets or laptops for secure video consultations with psychiatrists while in the field. Assessments and safety plans are completed using mobile electronic records or digital forms during home visits, aligning with guidance on telepsychiatric care in nontraditional settings and on documenting risk, supervision, and environmental factors. GPS enabled technology helps to get care efficiently to a youth

in crisis.¹⁹ Integrating law enforcement training, prehospital teleconsultation with community clinicians and paramedic teams informs transport and stabilization decisions, enhancing the overall crisis response.²⁰

Crisis Phone Services

Youth crisis lines and national text/chat services may employ scripts and structured documentation for suicide risk assessment and safety planning during remote contacts.²¹ Systematic risk assessment and collaborative safety planning adapted from telepsychiatry frameworks extend the impact of these services beyond initial contact. Digital follow-up through text messages or app notifications, including reminders and links to online safety plans, support ongoing patient care.

Child Psychiatry Access Programs

Pediatric mental health access programs offer real-time phone and video consultations to primary care clinicians.^{22,23} These programs provide digital resources that may include suicide screening and guidance for special populations.²⁴ During the pandemic, these programs facilitated rapid transitions to virtual care, supporting community providers and high-risk youth.

Crisis Residential Programs/Crisis Stabilization Units

Crisis residential programs and stabilization units leverage telepsychiatry psychiatric care, interpreter services, and family connections, especially during the pandemic.^{25,26} Tablets and kiosks may facilitate standardized digital intake assessments, daily symptom scales, and brief cognitive-behavioral or skills-training modules. When integrated into broader networks, these units ensure seamless connectivity between crisis stabilization and other community services.²⁷

Special Populations

Telepsychiatry has shown efficacy in treating youth with neurodevelopmental disorders and complex chronic medical conditions, with adaptations in communication style and caregiver involvement.^{28,29} Guidance emphasizes tailoring assessments and interventions for autism spectrum disorder, intellectual disability, and chronic illness, and empirical reviews underscore the feasibility and acceptability of telemental health in youth with chronic illnesses. Telehealth-intensive systems also highlight how digital care models can mitigate geographic and workforce barriers for rural and underserved youth, while raising ongoing concerns about broadband access and digital equity.³⁰

BUILDING TECHNOLOGY INTO A CRISIS PROGRAM

A successful digital health framework requires trust among stakeholders, adherence to evidence-based quality measures, and accountability standards.³¹ Assessing the use of digital health involves evaluating quality, safety, effectiveness, and outcomes.³² These outcomes may differ based on the setting and may include measures such as admission rates or changes to level of care, suicide attempts or completions, adverse effects of treatment, and patient-reported outcomes. **Box 1** outlines recommendations for providers to consider when looking to include more digital infrastructure in a patient's health care journey.

Pathways and Protocols

Standardized pathways guide patient care and ensure consistency and standards in care, while clinic protocols dictate available services, permissible treatments, and

Box 1**Recommendations for including digital infrastructure into crisis care for youth**

- **Establish Trust Among Stakeholders:**
 - Build a digital health framework that fosters trust among all involved parties, including patients, providers, and technology developers.
- **Adhere to Evidence-Based Quality Measures and Accountability Standards:**
 - Ensure that digital health initiatives follow established quality metrics and standards to maintain high levels of care.
- **Evaluate Quality, Safety, Effectiveness, and Outcomes:**
 - Regularly assess digital health tools for their impact on key outcomes such as admission rates, suicide attempts, adverse effects, and patient-reported outcomes.
- **Standardize Pathways and Protocols:**
 - Develop standardized care pathways and clinic protocols that define available services, permissible treatments, and exclusions to ensure consistent care.
- **Integrate CDS:**
 - Use CDS to offer personalized recommendations based on patient-specific variables and general guidelines, improving clinical decision-making.
- **Leverage Triggers and Automation:**
 - Implement digital triggers and automation for real-time crisis detection and therapeutic responses to enhance care delivery and outcomes.
- **Ensure Legal and Regulatory Compliance:**
 - Review and comply with federal and state laws pertinent to telehealth, digital therapeutics, and privacy regulations like HIPAA and COPPA.
- **Consider Ethical Issues:**
 - Address ethical concerns regarding data privacy, dissemination, and access to information gathered. Protect intellectual property rights and clarify ownership of skills and knowledge gained through the use of digital tools.
- **Define Ownership and Liability:**
 - Clearly define the ownership of knowledge and skills obtained through the use of AI and digital tools, and address liability issues associated with their use.

exclusions.³³ Clinical decision support systems may be included in both, offering personalized recommendations by considering specific patient variables alongside general guidelines. For example, personalized clinical decision support may look into a specific patient's chronic suicidality without intent or plan and may feed that information to a provider who is considering the need for 1:1 in an urgent care setting. Triggers and automation in digital devices enable real-time crisis detection and therapeutic responses, improving care delivery and outcomes.³⁴ This integration of triggers and automation not only improves the responsiveness to the dynamic needs of youth but also increases the efficiency and consistency of care delivery, ultimately contributing to better mental health outcomes.

Legal, Regulatory, and Ethical Considerations

Implementing technology for youth in crisis necessitates compliance with legal and regulatory requirements, which vary by setting and state. Indeed, providing telehealth across multiple states may require review of federal and state laws. Digital therapeutics are governed by the U.S. Food and Drug Administration (FDA), and privacy laws such as the Health Insurance Portability and Accountability Act (HIPAA) and Children's Online Privacy Protection Act (COPPA) must be adhered to.³⁵ Ethical considerations

around data privacy and the intellectual property of skills and knowledge gained through device use are equally important. Providers must consider the privacy of the information that is gathered, how it is disseminated and who gets access to it, even when PHI is removed. It is also important to consider the intellectual property of the skills and knowledge gained by the device or manufacturer through the use by patients and providers.³⁶ While stakeholders frequently grapple with accountability, ownership of the knowledge obtained using AI tools is not yet clearly defined.³⁷

Limitations of technology

There are clear limitations to the use and implementation of technology for crisis care for youth. Key limitations include geolocation inaccuracies, the complexity of cross-state responses, predictive modeling inaccuracies, and AI algorithm hallucinations. Geolocation issues are a major concern, as the accuracy of location data can impact the actual travel time of appropriate care, especially in emergency situations.³⁸ The complexity of coordinating cross-state responses further compounds these challenges, given that psychiatrists must adhere to different state regulations and licensure requirements, potentially delaying intervention.³⁹ Predictive modeling, while promising, is not without concerns; the algorithms may lack accuracy, leading to potential misidentification of mental health crises or inappropriate therapeutic recommendations.⁴⁰ Additionally, the phenomenon of AI algorithm hallucinations—where predictive models generate false or misleading outputs—poses a grave risk, as these inaccuracies can lead to misguided clinical decisions and potential harm to patients.⁴¹ These limitations underscore the need for continuous refinement and stringent regulatory oversight in the application of digital psychiatry technologies to ensure safe and effective mental health care delivery. **Box 2** highlights potential resolutions and adjustments for providers to consider when mitigating limitations in technology.

Future directions for technology in youth mental health

The future holds a lot of promise and potential predicaments for youth, especially those with mental health crises. While the technology advances, so too should our analytical considerations for downstream sequela of those changes. As teams move innovation at breakneck speeds, we must consider the reason for it, and consider the stakeholders, especially our patients, families, and our own practices. **Table 2** describes some examples of advancement in technology that could have a profound impact on children, families, and child and adolescent psychiatry, as a whole.

Box 2	
Limitations of technology in youth crisis mental health care	
Limitation	What a provider can do to safeguard against it
Geolocation issues	Implement multiple methods for location verification and ensure backup communication systems are in place for emergencies.
Complexity of cross-state coordination	Stay informed about state regulations and licensure requirements, and use telehealth platforms that facilitate interstate coordination.
Inaccuracy of predictive modeling	Continuously update and validate predictive models using current and diverse data sets, and incorporate human oversight in decision-making.
AI algorithm hallucinations	Employ robust testing and validation protocols, and use AI recommendations as supplementary information rather than primary decision-makers.

Table 2 Future directions for technology in youth mental health		
Future Direction	Description	Key Aspects
Collaborative CDS	Collaborative decision support systems across care settings	Enhanced coordination among care providers
Safeguards in DT	Comprehensive safety protocols in digital therapeutics and interventions	Documented emergency protocols, risk assessment tools, and integration of crisis-specific resources
Interoperability	Seamless integration and interoperability between systems and states to support the patient journey	Health information exchange, integration of mobile health app data into EHR, addressing cross-jurisdictional barriers

Collaborative Clinical Decision Support Systems

Clinical decision support systems across care settings aim to enhance coordination among providers.⁴² By integrating patient-specific variables with general guidelines, these systems provide personalized recommendations, improving clinical decision-making and patient outcomes. See [Fig. 1](#) for further information.

Safeguards in Digital Therapeutics

Comprehensive safety protocols are fundamental to responsible practice across all digital mental health modalities, including telehealth, mHealth applications, and digital interventions, particularly in crisis situations.⁴³ These protocols should involve documented emergency procedures with updated patient contact information, initial session verification procedures, and validated risk assessment tools, such as the Columbia Suicide Severity Rating Scale integrated into digital workflows. Mobile health applications must prominently feature crisis-specific resources like national suicide support hotlines within their interfaces. Evidence-based suicide safety planning should be translated into digital features that enable users to identify warning signs, select personalized coping strategies, designate supportive contacts, and access community resources during distress.^{44,45} A structured suicide risk assessment standard operating procedure should guide clinicians and digital platforms, improving responsiveness and reducing suicidality. Privacy, security, and data protection safeguards are critical, requiring end-to-end encryption, multi-factor authentication, continuous audit logging, and adherence to regulatory frameworks like HIPAA, COPPA, and GDPR.^{46–48}

Interoperability

Achieving seamless integration across systems and states is essential for supporting the patient journey. Health information exchange and EHR interoperability remain critical yet underdeveloped components of crisis care continuity.⁴⁹ Addressing technical incompatibilities between mental health applications and EHR systems is vital to facilitating bidirectional data sharing.⁵⁰ Effective integration of mobile health app data into EHR and EMR systems offers substantial benefits, enhancing patient education, self-management, real-time clinical decision-making, and overall health outcomes. Overcoming cross-jurisdictional barriers, such as maintaining licensure for clinicians in multiple states, is crucial.⁵¹ Interstate licensure compacts like PSYPACT and Interstate Medical Licensure Compact provide partial solutions, but challenges persist.^{51,52}

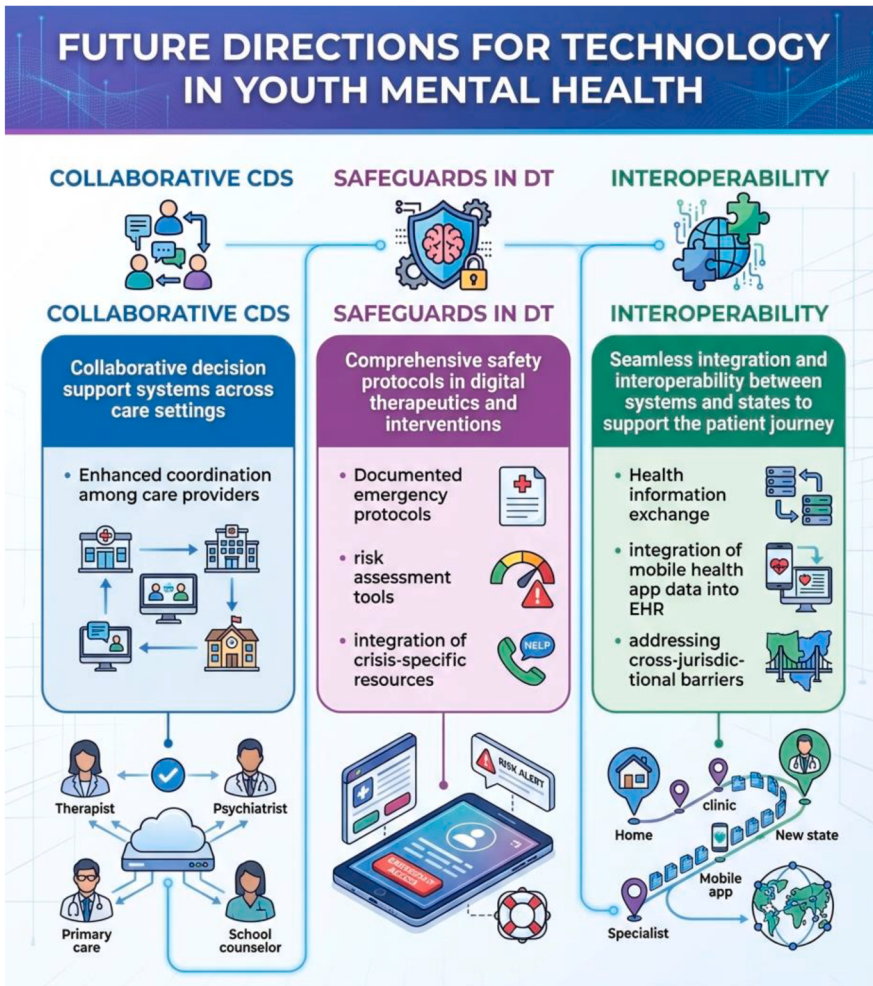


Fig. 1. Future directions in youth mental health.

Implementation frameworks must address regulatory and clinical requirements with mandatory training for medical professionals.

Integration Into the Complete Patient Journey Beyond Crisis

To fully support the patient journey, integration efforts must extend beyond crisis care. Effective mHealth-EHR integration involves capturing real-time patient data, direct app data integration into EHR interfaces, and real-time clinician-patient communication channels.⁵⁰ Automated reminders, clinical alerts, and synchronization with other applications or wearable devices enhance continuity of care.⁵⁰ Federal initiatives like the Trusted Exchange Framework and Common Agreement, and technical standards such as Fast Healthcare Interoperability Resources, aim to establish universal interoperability through common standards and governance frameworks.⁵³ Robust consent management systems are necessary to respect heightened privacy protections for mental health information while ensuring timely access to patient data for

informed decision-making.^{35,54} Sustained investment in infrastructure, training, governance, and organizational change management is needed to realize the transformative potential of integrated digital health systems, ultimately improving health outcomes across the complete patient journey.⁵⁵

SUMMARY AND RECOMMENDATIONS

To support the patient journey, a coordinated effort across various digital platforms and care settings is required. Essential components include emergency protocols, risk assessment tools, and integrated safety planning processes within digital health applications. Addressing privacy, security, and data protection needs, alongside regulatory compliance and ethical considerations, will ensure the sustainability and scalability of digital crisis care interventions for youth.

CLINICS CARE POINTS

- *Technological Integration in Mental Health Care:* Advances such as remote patient monitoring, telehealth, mHealth apps, clinical decision support systems, and artificial intelligence are crucial in enhancing the accessibility and effectiveness of mental health care for youth in crisis.
- *Digital Infrastructure in Crisis Care:* To effectively include digital infrastructure into crisis care for youth, it is essential to establish trust among stakeholders, adhere to evidence-based quality measures and accountability standards, evaluate quality, safety, effectiveness, and outcomes, standardize pathways and protocols, leverage triggers and automation, ensure legal and regulatory compliance, consider ethical issues, and define ownership and liability.
- *Telepsychiatry Across Settings:* Settings including emergency departments, outpatient clinics, and schools use telepsychiatry to offer real-time assessments, risk evaluations, and therapeutic interventions.
- *Challenges in Implementation:* Key challenges include regulatory compliance, data privacy concerns, technological limitations, and the need for interoperability across systems and jurisdictions.
- *Future Directions:* Focus on interoperability, integrated digital health systems, and comprehensive safety protocols to ensure continuous, personalized care across the entire patient journey.

DISCLOSURE

The authors have nothing to disclose. AI assisted in aspects of the creation of the article including formatting and image/table generation. All work has been written, reviewed, and approved by the authors.

REFERENCES

1. Tian E, Ho MK, Chou OHI, et al. Effectiveness of telepsychiatry interventions for youth with depressive and/or anxiety disorders: a systematic review with meta-analysis. *Clin Child Psychol Psychiatr* 2025;30(3):537–61.
2. Blondell VJ, Thomson ND. Virtual reality as an innovative tool for youth mental health. *Encyclopedia* 2025;5:215.
3. Peters TE. Transformational impact of health information technology on the clinical practice of child and adolescent psychiatry. *Child Adolesc Psychiatr Clin N Am* 2017;26(1):55–66.

4. Hobensack M, Levy DR, Cato K, et al. 25 × 5 symposium to reduce documentation burden: report-out and call for action. *Appl Clin Inf* 2022;13(02):439–46.
5. Morris AC, Ibrahim Z, Moghraby OS, et al. Moving from development to implementation of digital innovations within the NHS: myHealthE, a remote monitoring system for tracking patient outcomes in child and adolescent mental health services. *Digit Health* 2023;9:20552076231211551.
6. Choi H, Kim B, Kim I, et al. Analysis of the status and future direction for digital therapeutics in children and adolescent psychiatry. *J Korean Acad Child Adolesc Psychiatr* 2023;34(4).
7. Choi E, Yoon E-H, Park M-H. *Frontiers | Game-based digital therapeutics for children and adolescents: their therapeutic effects on mental health problems, the sustainability of the therapeutic effects and the transfer of cognitive functions.* *Front Psychiatr* 2022;13.
8. He Y, Yang L, Zhu X, et al. Mental health chatbot for young adults with depressive symptoms during the COVID-19 pandemic: single-blind, three-arm randomized controlled trial. *J Med Internet Res* 2022;24(11):e40719.
9. Ali K, Farrer L, Gulliver A, et al. Online peer-to-peer support for young people with mental health problems: a systematic review. *JMIR Ment Health* 2015;2(2):e19. Available at: <https://mental.jmir.org/2015/2/e19>.
10. Thapa Bajgain K, Amarbayan M, Wittevrongel K, et al. Patient-reported outcome measures used to improve youth mental health services: a systematic review. *J Patient-Rep Outcomes* 2023;7(1):14.
11. Saidinejad M, Duffy S, Wallin D, et al. The management of children and youth with pediatric mental and behavioral health emergencies. *Pediatrics* 2023;152(3):e2023063255.
12. Clinical update: telepsychiatry with children and adolescents. *J Am Acad Child Adolesc Psychiatr* 2017;56(10):875–93.
13. Feuer V, Mooneyham GC, Malas NM, et al. Addressing the pediatric mental health crisis in emergency departments in the US: findings of a national pediatric boarding consensus panel. *J Acad Consultation-Liaison Psychiatr* 2023;64(6):501–11.
14. Bakker D, Kazantzis N, Rickwood D, et al. Mental health smartphone apps: review and evidence-based recommendations for future developments. *JMIR Ment Health* 2016;3(1):e7. Available at: <https://mental.jmir.org/2016/1/e7>.
15. Sorter M, Stark LJ, Glauser T, et al. Addressing the pediatric mental health crisis: moving from a reactive to a proactive system of care. *J Pediatr* 2024;265:113479.
16. Iorfino F, Piper SE, Prodan A, et al. *Frontiers | using digital technologies to facilitate care coordination between youth mental health services: a guide for implementation.* *Frontiers Health Services* 2021;1.
17. Holland M, Hawks J, Morelli LC, et al. Risk assessment and crisis intervention for youth in a time of telehealth. *Contemporary School Psychology* 2021;25(1):12–26.
18. Chapman MR, Ackerman J, Thomas G. Decreasing pediatric suicide through collaboration. *Pediatrics* 2025;155(Suppl 1):e2024069159E.
19. Substance Abuse and Mental Health Administration: 2025 National Guidelines for a Behavioral Health Coordinated System of Crisis Care. PEP24-01- 037: Substance Abuse and Mental Health Services Administration, 2025. (Accessed 23 April 2026).
20. Shannahan R, Fields S. Services in support of community living for youth with serious behavioral health challenges: mobile crisis response and stabilization services. Substance Abuse and Mental Health Services Administration 2016.

21. Pisani AR, Gould MS, Gallo C, et al. Individuals who text crisis text line: key characteristics and opportunities for suicide prevention. *Suicide Life-Threatening Behav* 2022;52(3).
22. Sarvet B, Gold J, Bostic JQ, et al. Improving access to mental health care for children: the massachusetts child psychiatry access project. *Pediatrics* 2010;126(6): 1191–200.
23. Hilt RJ, Romaine MA, McDonnell MG, et al. The partnership access line: evaluating a child psychiatry consult program in Washington state. *JAMA Pediatr* 2013; 167(2):162–8.
24. National network of child psychiatry access programs - clinical algorithms. 2026. Available at: <https://www.nncpap.org/clinical-algorithms>. Accessed January 17, 2026.
25. Chen JT, Bruns E, Schellhause Z, et al. The youth crisis stabilization unit: an alternative psychiatric treatment model. In: *Handbook of evidence-based day treatment programs for children and adolescents*. Cham: Springer International Publishing; 2022. p. 415–34, 456–8.
26. Pullia K, Clavio A, Bolton JM, et al. Providing crisis care in a pandemic: a virtual based crisis stabilization unit. *Frontiers in Health Services* 2023;3:1030396.
27. Carlo AD, Goldman ML. The future of crisis services: clarifying accountability, improving coordination, and promoting sustainability. *Psychiatr Serv* 2025;76(9): 846–8.
28. Lau N, Colt SF, Waldbaum S, et al. Telemental health for youth with chronic illnesses: systematic review. *JMIR Ment Health* 2021;8(8):e30098.
29. Schieltz KM, O'Brien MJ, Tsami L, et al. Behavioral assessment and treatment via telehealth for children with autism: from local to global clinical applications. *Int J Environ Res Public Health* 2022;19(4):2190.
30. Sharma M, Sharma V, Peebles D. Telepsychiatry, access, and equity: accelerating mental health care for rural and low-income youth. *Front Public Health* 2025;13:1698682.
31. Lochner J, Carlbring P, Schuller B, et al. Digital interventions in mental health: an overview and future perspectives. *Internet Interv* 2025;40:100824.
32. Strudwick G, Kassam I, Torous J, et al. Building the infrastructure for sustainable digital mental health: it is "prime time" for implementation science. *JMIR Ment Health* 2025;12:e78791.
33. Lawal AK, Rotter T, Kinsman L, et al. What is a clinical pathway? Refinement of an operational definition to identify clinical pathway studies for a Cochrane systematic review. *BMC Med* 2016;14:35.
34. Szlyk H, Tan J. The role of technology and the continuum of care for youth suicidality: systematic review. *J Med Internet Res* 2020;22(10):e18672.
35. Resource document on digital mental health. American Psychiatric Association Joint Reference Committee; 2023.
36. Davies CR. An evolutionary step in intellectual property rights – artificial intelligence and intellectual property. *Computer Law & Security Review* 2011;27(6).
37. Vo V, Chen G, Aquino YSJ, et al. Multi-stakeholder preferences for the use of artificial intelligence in healthcare: a systematic review and thematic analysis. *Soc Sci Med* 2023;338:116357.
38. Yu L, Hu T, Liu T, Xiao Y. Using smartphone user mobility to unveil actual travel time to healthcare: an example of mental health facilities. *Health & Place* 2024; 90:103375.
39. Hagerman A., Richards M. and Archambault J., States need to update telehealth laws to improve access to mental health services. Available at: <https://connect>

withcare.org/wp-content/uploads/2025/05/Mental-Health-Telehealth-Report-2-14-2025.pdf (Accessed 23 April 2026), 2025.

40. Al-Juhani A, Desoky R, Iskander Z, et al. Machine learning models for predicting mental health crises in adolescents using electronic health records: a systematic review. *Cureus* 2025;17(8):e89873.
41. Aydin D. AI-based mental health support systems for youth: benefits and challenges. *The palgrave handbook of global social problems*. Springer; 2025. p. 1–18.
42. Bertie L-A, McDermott EA, Quiroz JC, et al. A scoping review of clinical decision support systems for child and adolescent mental health. *Curr Psychol* 2025;44.
43. Gryglewicz K, Orr VL, McNeil MJ, et al. Translating suicide safety planning components into the design of mhealth app features: systematic review. *JMIR Ment Health* 2024;11:e52763.
44. Vitiello E, Sowa NA. Socially distanced emergencies: clinicians' experience with tele-behavioral health safety planning. *Psychiatr Q* 2022;93(3):905–14.
45. Lohani M, Baker JC, Elsej JS, et al. Suicide prevention via telemental health services: insights from a randomized control trial of crisis response plan and self-guided safety planning approaches. *BMC Health Serv Res* 2024;24(1):1389.
46. Lustgarten SD, Garrison YL, Sinnard MT, et al. Digital privacy in mental health-care: current issues and recommendations for technology use. *Curr Opin Psychol* 2020;36:25–31.
47. Shin HD, Zaheer J, Torous J, et al. Designing implementation strategies for a digital suicide safety planning intervention in a psychiatric emergency department: protocol for a multimethod research project. *JMIR Res Protoc* 2023;12:e50643.
48. Zhang D, Lim J, Zhou L, et al. Breaking the data value-privacy paradox in mobile mental health systems through user-centered privacy protection: a web-based survey study. *JMIR Ment Health* 2021;8(12):e31633.
49. Zhang X, Saltman R. Impact of electronic health record interoperability on telehealth service outcomes. *JMIR Med Inform* 2022;10(1):e31837.
50. Lin J, Bates SM, Allen LN, et al. Integrating mobile health app data into electronic medical or health record systems and its impact on health care delivery and patient health outcomes: scoping review. *JMIR mHealth uHealth* 2025;13:e66650.
51. McBain RK, Schuler MS, Qureshi N, et al. Expansion of telehealth for mental health care after state policy changes. *JAMA Netw Open* 2023;6(6).
52. Tuckson RV, Edmunds M, Hodgkins ML. Telehealth. *N Engl J Med* 2017;377(16).
53. Abbasi AB, Layden J, Gordon W, et al. A unified approach to health data exchange. *JAMA* 2025;333(12).
54. Kassam I, Ilkina D, Kemp J, et al. Patient perspectives and preferences for consent in the digital health context: state-of-the-art literature review. *J Med Internet Res* 2023;25:e42507.
55. Ginsburg GS, Picard RW, Friend SH. Key issues as wearable digital health technologies enter clinical care. *N Engl J Med* 2024;390(12).