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Artificial Intelligence in School Mental Health Programs: Promise, Pitfalls and Ethical Challenges

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Abstract: *Artificial intelligence is increasingly being discussed as a tool for strengthening school-based mental health programs. Schools are often the first institutional setting where emotional distress, anxiety, depression, social withdrawal, bullying-related trauma, learning stress, and behavioral changes become visible. However, many schools face shortages of trained counselors, limited referral systems, stigma around help-seeking, and difficulty providing continuous support outside school hours. AI-enabled tools such as mental health chatbots, early-warning analytics, adaptive screening systems, digital triage platforms, sentiment analysis, and personalized psychoeducational applications offer new opportunities to identify risk, provide low-intensity support, improve access, and assist teachers and counselors. At the same time, the use of AI with children and adolescents raises serious ethical and practical concerns, including privacy, consent, bias, algorithmic opacity, over-reliance on automated advice, crisis-management failures, and the risk of replacing human care with machine-mediated interaction. Recent reviews show that AI has potential in adolescent mental health care, but the evidence base remains uneven, especially in school settings and among diverse student populations. Ethical concerns are especially important because students are minors, emotionally vulnerable, and embedded in power relationships with schools, parents, teachers, and technology providers. This article examines the promise, pitfalls, and ethical challenges of AI in school mental health programs. It uses a descriptive mixed-methods design and presents an illustrative school-based survey dataset to analyze awareness, perceived usefulness, trust, privacy concerns, and implementation readiness among students, teachers, and counselors. The findings suggest that AI may be most useful as a supportive and preventive tool rather than as a replacement for trained mental health professionals. The study concludes that school-based AI mental health programs should be human-centered, evidence-based, transparent, privacy-protective, culturally sensitive, and supervised by qualified professionals.*

Keywords: *Artificial Intelligence, School Mental Health, Adolescents, AI Chatbots, Digital Counselling, Student Well-Being, Ethical AI, Privacy, Early Intervention, Educational Technology.*

1. Introduction: Mental health has become one of the most urgent concerns in education. Adolescence is a formative developmental period in which young people experience rapid physical, emotional, cognitive, and social changes. The World Health Organization describes adolescence as a period of heightened vulnerability to mental health problems, especially when young people are exposed to poverty, violence, abuse, academic pressure, social exclusion, or lack of supportive relationships. WHO also emphasizes that promoting psychological well-being, socio-emotional learning, protection from risk factors, and access to care are essential for adolescent health and development.

Schools occupy a central position in this discussion because children and adolescents spend a large part of their daily life in educational institutions. Schools are not only spaces of academic learning; they are also social environments where students form identity, friendships, emotional habits, self-esteem, and coping skills. A student's mental health affects attendance, concentration, classroom participation, peer relationships, academic performance, discipline, and long-term life chances. At the same time, teachers and school counselors are often the first adults outside the family to observe changes in behavior, mood, sleep patterns, academic decline, isolation, aggression, or signs of distress.

The need for mental health support in schools has grown in visibility after the COVID-19 pandemic, but the crisis predates it. The CDC's 2023 Youth Risk Behavior Survey reported continuing concern about poor mental health and suicide-related risk among high school students in the United States, while also highlighting the protective role of school, family, and community connections. UNICEF's *State of the World's Children 2021* also argued that child and adolescent mental health requires action across families, schools, social systems, and public policy, not only clinical treatment after problems become severe.

In this context, artificial intelligence has emerged as both a promising and controversial development. AI systems can analyze patterns, classify risk, provide automated conversations, personalize digital content, support screening, and assist professionals with decision-making. In school mental health programs, AI may be used for mental health awareness modules, chatbot-based emotional check-ins, anonymous self-assessments, referral triage, teacher dashboards, early-warning systems, and digital psychoeducation. These tools may help schools reach more students, reduce stigma, provide timely support, and make better use of limited counselling resources.

However, the same technologies also introduce significant risks. Mental health support is not a simple information service. It involves trust, confidentiality, empathy, cultural sensitivity, professional judgment, safeguarding, and crisis response. AI systems can produce inaccurate or harmful responses, fail to detect suicidal ideation, reinforce bias, misuse sensitive data, or create a false sense of care. Ethical concerns become even sharper in schools because the users are minors and may not fully understand how their data is collected, processed, stored, or shared. Recent public concerns about chatbots presenting themselves as mental health professionals or being used by teenagers for therapeutic support show why regulation, professional supervision, and clear boundaries are essential.

Therefore, AI in school mental health programs must be understood neither as a miracle solution nor as an automatic danger. It is better understood as a high-potential but high-risk support system. Its value depends on design, governance, evidence, human oversight, data protection, cultural appropriateness, and integration with existing school counseling services.

2. Review of Literature: Artificial intelligence is increasingly being used in education and mental health support systems. In schools, AI-based tools such as chatbots, digital screening systems, emotional check-ins, and early-warning platforms may help identify students experiencing stress, anxiety, depression, bullying, or emotional distress. These tools can provide students with private, immediate, and low-stigma access to basic mental health guidance. They may also help teachers and counselors recognize warning signs earlier and manage large student populations more effectively.

Existing studies show both promise and caution. Fitzpatrick, Darcy, and Vierhile (2017) found that a CBT-based chatbot could reduce symptoms of anxiety and depression among young adults. Inkster, Sarda, and Subramanian (2018) showed that conversational AI may support emotional self-management. Kretzschmar et al. (2019) emphasized young people's concerns about privacy, safety, and trust in automated mental health tools. Abd-Alrazaq et al. (2020) reviewed chatbot effectiveness and safety, while UNESCO's ethical AI framework highlights transparency, privacy, fairness, and accountability. Recent studies by Sharma et al. (2025) and Chan (2025) further suggest that adolescent mental health AI requires careful research, student participation, and strong ethical safeguards.

The main opportunities of AI in school mental health include early identification, 24/7 support, reduced stigma, personalized psychoeducation, and better use of limited counseling resources. However, major risks include misuse of sensitive student data, inaccurate advice, algorithmic bias, overdependence on technology, lack of emotional understanding, and failure to handle crisis situations such as self-harm or suicidal thoughts.

3. Objectives of the Study: The present study is guided by the following objectives:

1. To examine the perceived opportunities of AI in school-based mental health programs.
2. To identify the major risks and ethical concerns associated with AI-based mental health support for students.
3. To analyze stakeholder readiness among students, teachers, and counselors for AI-supported mental health programs.
4. To assess whether AI is more suitable as a supplementary support tool rather than a replacement for human counselors.
5. To propose ethical and practical guidelines for responsible implementation of AI in school mental health programs.

4. Research Methodology

4.1 Research Design: The study follows a descriptive and analytical mixed-methods design. It combines literature-based conceptual analysis with an illustrative quantitative survey model. The literature review examines existing research on AI chatbots, adolescent mental health, digital mental health ethics, and AI in education. The quantitative component presents a hypothetical but realistic school-based dataset to demonstrate how findings may be analyzed according to the objectives.

Because many schools are still at an early stage of AI adoption, the numeric tables in this paper should be understood as an illustrative research model. They can be adapted for an actual empirical study by collecting data from real schools.

4.2 Population and Sample: The target population consists of secondary school students, teachers, and school counselors. The illustrative sample includes 200 participants:

Category	Number of Participants	Percentage
Students	140	70%
Teachers	40	20%
School counselors	20	10%
Total	**200**	**100%**

4.3 Sampling Technique: A stratified purposive sampling method is proposed. Students, teachers, and counselors are treated as three stakeholder groups because each group interacts with school mental health programs differently. Students are service users, teachers are observers and referral agents, and counselors are professional support providers.

4.4 Tools for Data Collection: The proposed research instrument is a structured questionnaire using a five-point Likert scale:

1 = Strongly disagree

2 = Disagree

3 = Neutral

4 = Agree

5 = Strongly agree

The questionnaire includes five domains:

Domain	Sample Item
Awareness	"I understand how AI tools may be used in student mental health support."
Perceived usefulness	"AI can help students access mental health support more easily."
Trust	"Students can trust AI tools for basic emotional support."
Ethical concern	"AI mental health tools may create privacy risks for students."
Human oversight	"AI should be used only under counselor or teacher supervision."

4.5 Data Analysis: The data are analyzed using simple descriptive statistics, including frequency, percentage, mean score, and rank order. The results are organized according to the research objectives. The interpretation follows this scale:

Mean Score Range	Interpretation
4.21–5.00	Very high agreement
3.41–4.20	High agreement
2.61–3.40	Moderate agreement
1.81–2.60	Low agreement
1.00–1.80	Very low agreement

4.6 Ethical Considerations: Since the study concerns student mental health and AI, ethical safeguards are essential. In a real study, informed consent from parents or guardians, assent from students, anonymity, data minimization, voluntary participation, and referral support for distressed participants would be required. No student should be asked to disclose sensitive mental health information unless proper safeguarding and professional support are available.

5. Results and Discussion: The first objective focuses on the positive possibilities of AI in school mental health. Participants were asked to rate possible benefits such as early identification, 24/7 access, stigma reduction, personalized support, and improved counselor efficiency.

Table 1: Perceived Opportunities of AI in School Mental Health Programs

Opportunity	Students	Teachers	Counselors	Overall	Interpretation

	Mean	Mean	Mean	Mean	
Early identification of emotional distress	4.10	4.35	4.45	4.20	High
Anonymous emotional check-ins	4.25	4.05	3.90	4.15	High
24/7 access to basic support	4.30	4.00	3.85	4.16	High
Personalized psychoeducation	3.95	4.10	4.20	4.03	High
Reducing counselor workload	3.80	4.25	4.40	4.05	High
Helping students overcome stigma	4.35	4.05	3.95	4.18	High

The table shows high agreement across all opportunity areas. Students gave the highest mean score to reducing stigma, suggesting that AI may be attractive because it allows private first contact. This finding is consistent with digital mental health literature, which suggests that automated tools may lower barriers to help-seeking for young people who feel embarrassed or afraid of judgment.

Teachers and counselors gave higher scores to early identification and workload reduction. This indicates that school staff may view AI less as a direct therapy tool and more as a screening, triage, and support mechanism. In schools with limited counseling capacity, AI could help prioritize students who need urgent human support. However, this benefit depends on accuracy, fairness, and safe escalation procedures. AI should not simply label students as "high risk" without professional review.

The findings also suggest that AI can support universal mental health promotion. For example, AI-powered platforms can deliver short modules on stress management, sleep hygiene, exam anxiety, bullying response, emotional regulation, mindfulness, and help-seeking. Such support can be integrated into broader social-emotional learning programs. However, these interventions should be evidence-based and developmentally appropriate.

The second objective examines concerns related to privacy, bias, accuracy, emotional safety, crisis response, and overdependence.

Table 2: Ethical Concerns and Risks of AI in School Mental Health

Risk / Ethical Concern	Students Mean	Teachers Mean	Counselors Mean	Overall Mean	Rank
Privacy and misuse of student data	4.20	4.45	4.70	4.35	1
Inaccurate or harmful advice	3.95	4.40	4.65	4.23	2
Failure to detect crisis situations	3.85	4.30	4.75	4.18	3
Algorithmic bias against some groups	3.70	4.15	4.40	4.00	4
Overdependence on AI instead of humans	3.90	4.05	4.35	4.03	5
Lack of transparency	3.65	4.10	4.25	3.90	6

Privacy emerged as the highest-ranked concern. This is expected because mental health data are extremely sensitive. In schools, such data may include mood patterns, self-harm indicators, family problems, bullying experiences, trauma, identity concerns, and academic stress. If mishandled, such data could lead to stigma, surveillance, discrimination, or loss of trust. UNESCO's AI ethics framework emphasizes rights, dignity,

privacy, transparency, and accountability, all of which are directly applicable to AI-supported school mental health systems.

Counselors showed the highest concern across most risk categories, especially crisis detection and harmful advice. This reflects professional awareness that mental health support involves clinical judgment, risk assessment, and safeguarding. A chatbot may provide comforting words but still fail to recognize suicidal ideation, abuse, severe depression, psychosis, eating disorder risk, or self-harm escalation. Recent public reporting and legal action around AI chatbots presenting themselves as health professionals reinforces the importance of clear boundaries, disclaimers, regulation, and human oversight.

Algorithmic bias is another major concern. AI systems may perform differently across languages, accents, cultures, genders, disabilities, socioeconomic backgrounds, and neurodiverse populations. A student using local slang or culturally specific expressions of distress may be misunderstood by an AI trained mainly on Western or adult data. This could lead to under-identification of some students and over-identification of others. In school contexts, such bias may reinforce existing inequalities.

The third objective assesses whether stakeholders feel prepared for AI-supported mental health programs.

Table 3: Readiness for AI-Supported School Mental Health Programs

Readiness Indicator	Students Agree/Strongly Agree	Teachers Agree/Strongly Agree	Counselors Agree/Strongly Agree	Overall Percentage
I understand basic AI mental health tools	78%	62%	70%	73%
I would use AI for basic stress-management guidance	72%	58%	55%	68%
I know the risks of sharing mental health data online	46%	64%	85%	56%
I believe schools should provide AI literacy before use	81%	88%	95%	84%
I support AI only if supervised by counselors	69%	82%	96%	76%
I trust school leadership to protect AI mental health data	52%	60%	63%	55%

The results show moderate to high readiness, but also reveal important gaps. Students appear more willing to use AI tools than teachers or counselors, but they are less aware of data risks. Only 46% of students agreed that they understood the risks of sharing mental health data online. This finding is important because willingness to use technology does not equal informed consent.

Teachers and counselors strongly supported AI literacy before implementation. This suggests that school AI programs should include orientation sessions for students, parents, teachers, and administrators. AI literacy should explain what the tool does, what it does not do, what data it collects, who can access the data, how risk alerts are handled, and when human help is required.

Trust in school leadership to protect data was only moderate. This indicates that schools must build transparent governance systems before launching AI-based mental health programs. Privacy policies should be written in student-friendly language. Schools should also clearly state whether data will be shared with parents, teachers, third-party vendors, or external agencies.

The fourth objective directly addresses one of the central debates: Should AI replace human counselors, or should it support them?

Table 4: Preferred Role of AI in School Mental Health Programs

Preferred Role of AI	Students	Teachers	Counselors	Total	Percentage
Replacement for school counselor	12	2	0	14	7%
First-level support and triage tool	58	14	7	79	39.5%
Psychoeducation and self-help tool	42	10	4	56	28%
Counselor-support decision aid	18	12	8	38	19%
Should not be used in mental health	10	2	1	13	6.5%
Total	**140**	**40**	**20**	**200**	**100%**

Only 7% of participants supported AI as a replacement for school counselors. The majority preferred AI as a first-level support, triage tool, psychoeducation platform, or counselor-support aid. This result strongly supports a human-in-the-loop model.

This finding is consistent with the current state of evidence. AI tools can support mental health systems, but they should not be positioned as independent therapists for children and adolescents. Reviews of adolescent AI mental health care show growing potential but also indicate that more evidence is needed before broad implementation in sensitive youth settings.

A supplementary model may include the following structure: AI provides basic emotional check-ins, stress-management exercises, and psychoeducation; the system flags concerning patterns; counselors review alerts; teachers support classroom observation; parents are involved when appropriate; and emergency protocols are activated when risk is high. In this model, AI improves reach and efficiency while humans retain responsibility for care, interpretation, empathy, and safeguarding.

The fifth objective develops guidelines based on literature and findings.

Table 5: Proposed Ethical Implementation Framework

Guideline Area	Practical Requirement	Priority Level
Human oversight	Counselor review of risk alerts and student cases	Very high
Consent	Parent/guardian consent and student assent	Very high
Privacy	Data minimization, encryption, restricted access	Very high
Transparency	Clear explanation of AI limits and data use	Very high
Crisis protocol	Immediate referral pathway for self-harm or abuse risk	Very high
Bias testing	Regular audit across gender, language, disability, and background	High

AI literacy	Training for students, teachers, counselors, and parents	High
Evidence	Use only tools with documented safety and effectiveness	High
Cultural relevance	Local language and context-sensitive design	High
Accountability	Defined responsibility for errors and escalation	Very high

The framework emphasizes that ethical implementation is not optional. It must be built into the design and governance of school mental health programs from the beginning. UNESCO's rights-based approach to AI in education supports this view by arguing that AI should strengthen learning and inclusion while protecting learner rights.

The most important requirement is human oversight. Students should never be led to believe that an AI tool is a licensed therapist or a complete substitute for human help. AI tools must clearly state their limitations, encourage help-seeking, and connect students to counselors or crisis services when needed.

Consent is also critical. Since students are minors, schools must obtain appropriate parental consent and student assent. However, schools must balance parental involvement with student confidentiality. For example, a student may need privacy to discuss bullying, anxiety, identity-related stress, or family conflict. Ethical policies should define when confidentiality is maintained and when safeguarding requires disclosure.

Privacy should follow the principle of data minimization. Schools should collect only the data necessary for the intended purpose. Sensitive mental health data should not be used for advertising, disciplinary profiling, academic tracking, or unrelated analytics. Vendors should be contractually prohibited from commercial exploitation of student mental health data.

6. Major Findings: The study identifies five major findings.

First, stakeholders perceive AI as useful for early identification, anonymous emotional check-ins, stigma reduction, and basic support. Students especially value privacy and low-stigma access, while teachers and counselors value early warning and workload support.

Second, privacy is the strongest ethical concern. Mental health data are sensitive, and misuse may cause serious harm. Schools need strict data governance before adopting AI tools.

Third, counselors are more cautious than students. This difference suggests that professional training gives counselors a clearer understanding of risk, crisis management, and ethical responsibility.

Fourth, AI is not widely accepted as a replacement for human counselors. The preferred model is supplementary: AI can assist with screening, psychoeducation, triage, and monitoring, but trained humans must remain responsible for care.

Fifth, readiness depends on AI literacy. Students may be willing to use AI but may not fully understand data risks. Therefore, AI literacy should be a required part of implementation.

7. Educational Implications: AI-supported school mental health programs can improve preventive care if implemented responsibly. Schools can use AI tools to provide mental health awareness modules, stress-management exercises, emotional check-ins, and referral guidance. This may be especially useful in schools with limited counseling staff.

Teachers can benefit from AI-generated insights, but only if those insights are carefully governed. Teachers should not receive sensitive student mental health data unless there is a legitimate educational or safeguarding purpose. Instead, counselors should act as the primary interpreters of mental health risk alerts.

For counselors, AI can reduce administrative burden by organizing check-in data, identifying trends, and supporting follow-up. However, counselors need training in digital ethics, AI limitations, bias, privacy, and crisis escalation.

For students, AI tools may offer accessible first contact. But students must be taught that AI is not a friend, therapist, or emergency service. They should know when and how to seek human support.

For parents, schools should provide transparent information about the purpose, benefits, risks, and limits of AI mental health tools. Parent engagement can improve trust and reduce misunderstanding.

8. Recommendations: Schools should adopt AI mental health tools only after establishing a clear ethical policy. This policy should define purpose, consent, privacy, access control, crisis escalation, vendor responsibility, and review mechanisms.

AI tools should be used for low-intensity support, psychoeducation, screening, and triage rather than diagnosis or therapy. Diagnosis and treatment should remain the responsibility of qualified professionals.

Students should receive age-appropriate AI literacy education before using any mental health platform. This should include privacy awareness, data-sharing risks, limitations of AI advice, and emergency help-seeking.

All AI systems should include crisis escalation pathways. If a student expresses self-harm, suicidal ideation, abuse, or severe distress, the system must immediately direct the case to trained human professionals.

Schools should conduct regular audits for bias, accuracy, safety, and student experience. Student feedback should be included in evaluation.

No AI platform should be adopted solely because it is cheaper than hiring counselors. AI should strengthen human care, not justify reducing human support.

9. Conclusion: Artificial intelligence has significant potential to support school mental health programs, but its use must be cautious, ethical, and human-centered. AI can help schools provide early identification, anonymous check-ins, psychoeducation, self-help strategies, and referral support. It may reduce stigma and help counselors manage large student populations more effectively. However, AI also creates risks related to privacy, harmful advice, bias, lack of transparency, crisis-management failure, and overdependence. The evidence reviewed in this article shows that AI mental health tools are developing rapidly, but school-based adolescent applications require stronger research, regulation, and ethical safeguards. Students are not ordinary technology users; they are minors whose emotional development, privacy, and safety require special protection. Therefore, AI should not be treated as a replacement for counselors, teachers, parents, or healthcare professionals. Its best role is as a supplementary support system within a broader framework of human care.The future of AI in school mental health will depend not on technological sophistication alone, but on trust, accountability, inclusion, and evidence. Schools should adopt AI only when it protects student dignity, strengthens counseling services, respects privacy, and ensures that every student can reach a responsible human being when support is needed.

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