

ORIGINAL ARTICLE

Medicine Science 2026;15(3):1067-74

Artificial intelligence tools in clinical practice, research, and education: An online survey on use and perceptions of child and adolescent psychiatrists in Türkiye**^{ID}Sarper Icen¹, ^{ID}Yusuf Selman Celik², ^{ID}Sefika Nurhuda Karaca Cengiz³, ^{ID}Yagmur Harputlu Yamak⁴**¹Kırşehir Ahi Evran University, Faculty of Medicine, Department of Child and Adolescent Mental Health and Diseases, Kırşehir, Türkiye²Etilik City Hospital, Department of Child and Adolescent Psychiatry, Ankara, Türkiye³Eskişehir City Hospital, Department of Child and Adolescent Psychiatry, Eskişehir, Türkiye⁴Gaziantep City Hospital, Department of Child and Adolescent Psychiatry, Gaziantep, Türkiye

Received 02 February 2026; Accepted 18 April 2026

Available online 20 July 2026 with doi: 10.5455/medscience.2026.01.028

Content of this journal is licensed under a Creative Commons Attribution-NonCommercial-NonDerivatives 4.0 International License.

**Abstract**

We aimed to describe the prevalence, frequency, and purposes of artificial intelligence (AI) tool use among child and adolescent psychiatrists and residents in Türkiye, and to examine perceived benefits, risks, child/adolescent-specific concerns, and approval of patient/parent mental health-related use outside clinical settings. We conducted an anonymous, cross-sectional online survey (November–December 2025) distributed through national professional WhatsApp groups (convenience sample). The survey assessed sociodemographic/professional variables, technology readiness, AI tool use (ever/regular use, frequency), purposes of use across common tasks, and attitudes/perceptions rated on Likert scales. Composite scores were created for perceived benefits/risks, child/adolescent-specific concerns, and approval of out-of-clinic mental health uses; associations were examined with Spearman correlations. Of 100 initiated responses, 88 complete responses were analyzed (mean age 32.5 years; 76.1% female). ChatGPT was the most commonly used AI tool in our sample: nearly all participants (98.9%) had used it before. 93.2% reported regular professional/educational use of at least one AI tool (ChatGPT: 90.9%). Formal AI training was uncommon (5.7%). Most respondents used AI at least weekly (84.1%), and nearly half used it daily (46.6%). The most frequent purposes were preparing educational materials, accessing up-to-date information, and literature scanning, whereas clinical decision support and medicolegal documentation were less common. Participants reported moderate endorsement of both benefits and risks, high child/adolescent-specific concerns, and comparatively low approval of out-of-clinic mental health uses, with the highest endorsement for therapist-supervised adjunctive use and the lowest for medication or treatment advice. More frequent AI use was associated with higher self-rated AI knowledge, greater perceived benefits and approval, and lower child/adolescent-specific concerns. AI tool use is widespread among child and adolescent psychiatrists in Türkiye despite minimal formal training, suggesting a training-and-governance gap. Use is primarily oriented toward education and knowledge-support tasks, while substantial child/adolescent-specific concerns persist. Patient-facing applications appear most acceptable when supervised; guidance and competency-based training are needed to support safe, bounded implementation.

Keywords: Artificial Intelligence, natural language processing, child psychiatry, adolescent psychiatry**Introduction**

Artificial intelligence (AI), including generative AI tools such as large language model (LLM)–based conversational agents and research assistance applications, is becoming increasingly available in healthcare, supporting information retrieval, documentation, data analysis, and decision-making tasks [1,2]. In mental health, these tools are commonly used for educational and research purposes and are increasingly discussed as potential additions to clinical workflows [3-5]. However, their use raises

practical and ethical concerns, including fluent but inaccurate outputs, bias, privacy and data protection risks, and unclear accountability for clinical decisions [6,7].

Child and adolescent psychiatry presents additional sensitivities for AI-related use. Clinical assessment and decision-making require developmental considerations, careful appraisal of family and environmental context, and interpretation of relational and nonverbal information. Ethical complexity is also heightened due to assent/consent, safeguarding obligations, and potential

CITATION

Icen S, Celik YS, Karaca Cengiz SN, Harputlu Yamak Y. Artificial intelligence tools in clinical practice, research, and education: An online survey on use and perceptions of child and adolescent psychiatrists in Türkiye. Med Science. 2026;15(3):1067-74.



Corresponding Author: Sarper Icen, Kırşehir Ahi Evran University, Faculty of Medicine, Department of Child and Adolescent Mental Health and Diseases, Kırşehir, Türkiye
Email: sarper.icen@gmail.com

downstream consequences for children and families [8,9]. Understanding clinicians' patterns of use alongside perceived benefits, risks, and child-specific concerns is therefore important for informing training, governance, and appropriate boundaries, particularly for any out-of-clinic mental health-related use.

Empirical research on psychiatrists' perspectives toward AI tools remains limited, and existing studies often include general psychiatry or mixed clinician samples rather than child and adolescent specialists [10-12]. Despite increasing access to these tools and the likelihood that many clinicians and trainees encounter them in professional and educational contexts, data on clinician use and perceptions in Türkiye, particularly in child and adolescent psychiatry, are scarce.

In this study, "AI tools" refers to both general-purpose chatbot tools (ChatGPT, Gemini, Claude, Grok, DeepSeek) and research-focused tools for literature discovery and synthesis (Consensus, Scite.ai, Elicit, Connected Papers, Research Rabbit). The primary aim was to characterize AI tool use among child and adolescent psychiatrists and residents in Türkiye, including prevalence, frequency of use in professional and educational contexts, and purposes across clinical, research, and educational activities. The secondary aim was to assess attitudes and perceptions, including perceived benefits and risks, child- and adolescent-specific concerns, approval of out-of-clinic mental health-related uses, and associations among these domains.

Material and Methods

This descriptive, cross-sectional study used an anonymous online survey of child and adolescent psychiatrists and residents currently practicing in Türkiye. Data collection occurred between November and December 2025.

Participants were recruited via convenience sampling through two national professional WhatsApp groups for child and adolescent psychiatrists and residents, as well as through invitations relayed by department heads to assistant doctors in training who might not have been members of these groups. At the time of recruitment, one WhatsApp group included approximately 930 specialist/academic members, and the other included about 900 members across different professional levels; however, substantial overlap between the groups was expected. Because recruitment occurred through group postings and secondary sharing, the number of unique individuals who viewed the invitation and the participation rate could not be determined. In addition, a contemporary official national count of child and adolescent psychiatrists and residents currently practicing in Türkiye was not publicly available from accessible national sources at the time; therefore, formal representativeness relative to the national workforce could not be estimated.

Online informed consent was obtained from all participants. No direct identifiers (e.g., names, email addresses) were collected or exported into the analytic dataset. Data were stored in an access-restricted, password-protected account and were not shared with third parties.

Ethics approval was obtained from the local ethical committee, Ankara Etlik City Hospital No. 1 Scientific Research Evaluation and Ethics Committee (17/11/2025; approval no: AEŞH-BADEK1-2025-572).

The questionnaire was administered using SurveyMonkey. To reduce duplicate entries, SurveyMonkey's duplicate-entry prevention feature was enabled (one response per IP address); however, IP-based controls may not fully prevent duplicates and may also restrict participation in shared networks. Responses were screened for completeness. Of 100 initiated or submitted surveys, 88 complete responses were included in the analytic dataset. Partially completed submissions were excluded, and no imputation was performed. SurveyMonkey metrics indicated a typical completion time of 10–15 minutes.

The questionnaire was developed for this study to assess AI tool use and perceptions among child and adolescent psychiatrists. Item content was informed by conceptual discussions of clinicians' attitudes toward AI in medicine and mental health, as well as the authors' clinical and academic expertise. The draft survey was reviewed by the author team for clarity and relevance. Formal cognitive interviewing and test-retest reliability assessment were not conducted, as the survey was intended for descriptive and exploratory analyses rather than instrument validation. The full questionnaire (items/anchors), factor loadings/diagnostics, and the correlation matrix are provided in the Supplementary Material.

The survey comprised four sections: (1) sociodemographic and professional characteristics; (2) technology readiness/competence; (3) AI tool use practices; and (4) attitudes and perceptions toward AI. AI tool use was assessed with two complementary indicators. First, participants were asked which tools they used "regularly" in professional/educational contexts; this item was presented without a fixed numerical frequency threshold and was therefore respondent-defined. Second, the overall frequency of AI use related to profession/training was assessed separately with a single ordinal item ranging from "more than once a day" to "never." Accordingly, the "regular use" item should be interpreted as a pragmatic, self-defined indicator of sustained use rather than as a standardized frequency-based measure.

Section 4 items were rated on a 6-point Likert scale and grouped into three item sets: perceived benefits and risks of AI use in medicine (15 items), child- and adolescent-specific concerns regarding AI-supported applications (5 items), and approval of mental health-related AI use outside clinical settings (6 items). The Section 4 item sets were developed for this study and were not intended as validated psychometric instruments. Exploratory factor analyses were used only to summarize correlated items into interpretable, sample-specific composites for descriptive and exploratory correlational analyses. Therefore, the resulting composite scores should be interpreted as provisional summary measures within this dataset rather than as validated scales suitable for broader psychometric use without further development and replication.

Analyses were conducted in SPSS (Version 22.0). For Section 4 item sets, exploratory factor analyses (principal axis factoring) were performed separately for each set to summarize correlated items into interpretable composites for descriptive and exploratory correlational analyses (not for development of a validated instrument). Factorability was evaluated using the Kaiser–Meyer–Olkin (KMO) measure and Bartlett’s test of sphericity. The number of factors was determined based on scree plot inspection and interpretability. For multi-factor solutions, oblique rotation (Direct Oblimin with Kaiser normalization) was used. Items were interpreted using the rotated pattern matrix; loadings ≥ 0.30 were considered meaningful. Internal consistency was evaluated using Cronbach’s alpha. Composite scores were computed as mean item scores (range 1–6) for each derived factor; for descriptive purposes, sum scores were also calculated. Items that did not load meaningfully on any factor were retained as standalone items and reported descriptively.

Descriptive statistics are reported as mean (SD) and/or median (min–max) for continuous variables and n (%) for categorical

variables. Given the ordinal and/or non-normal distribution of several variables, associations were examined using Spearman’s rank correlation coefficients (ρ) with two-tailed tests. Because multiple correlations were examined, analyses were considered exploratory and emphasis was placed on effect size and consistency (e.g., $|\rho| \geq 0.30$) rather than statistical significance alone.

Results

Sample Characteristics

A total of 100 responses were initiated/received; after excluding incomplete submissions (n = 12), 88 complete responses were analyzed (Table 1). Most participants reported intermediate computer skills (69.3%, n = 61), with 18.2% (n = 16) reporting advanced skills and 12.5% (n = 11) reporting beginner skills. Regarding attitudes toward new technology, 55.7% (n = 49) identified as pragmatic, 34.1% (n = 30) as early adopters, 5.7% (n = 5) as among first users, and only 4.5% (n = 4) described themselves as cautious or resistant.

Table 1. Descriptive findings related to sample characteristics (N = 88)

Variable		Mean (S.D.) or N (%)	Median (range)
Age		32.51 (5.155)	32.00 (25.0-55.0)
Sex (Females)		67 (76.1)	
	Resident (assistant doctor)	33 (37.5)	
Job title	Specialist	39 (44.3)	
	Academician	16 (18.2)	
Years worked as a physician		8.01 (5.293)	7.00 (1.0-32.0)
Years worked as a child and adolescent psychiatrist		6.61 (5.007)	6.00 (1.0-27.0)
Settlement (metropolitan)		75 (85.2)	
	Central Anatolia region	45 (51.1)	
	Marmara region	15 (17.0)	
	Aegean region	11 (12.5)	
	Other	17 (19.3)	
Region	University hospital	23 (26.1)	
	City hospital	35 (39.8)	
	Research and training hospital	23 (26.1)	
	Private clinic	7 (8.0)	
Daily workload (number of patients)		18.06 (9.103)	20.00 (0-40.0)
Weekly work hours		39.25 (7.658)	40.00 (7.0-75.0)
Inpatient unit		25 (28.4)	
Scientific publications in the last five years		5.72 (13.932)	2.00 (0-111.0)
Scientific congress attendance in one year		1.40 (0.953)	1.00 (0-4.0)

AI Tool Use and Frequency

Table 2 presents the use of different AI tools by the sample. Nearly all participants had used ChatGPT at least once (98.9%, n = 87). Other commonly used tools included Gemini (62.5%, n = 55), DeepSeek (27.3%, n = 24), Grok (19.3%, n = 17), and

Consensus (18.2%, n = 16). For regular use in professional/ educational contexts, ChatGPT remained dominant (90.9%, n = 80), followed by Gemini (19.3%, n = 17) and Consensus (14.8%, n = 13). A minority reported no regular use of AI tools (6.8%, n = 6).

Self-rated AI knowledge was primarily average (52.3%, n = 46) or little (39.8%, n = 35), with 8.0% (n = 7) reporting above-average knowledge. Notably, only 5.7% (n = 5) had received previous AI education/training, while 94.3% (n = 83) had not. However, frequency of AI use related to their profession/training was high in the sample: 46.6% (n = 41) reported using AI at least daily (more than once a day 39.8% + once a day 6.8%), and 84.1% (n = 74) used AI at least weekly (daily + more than once a week 30.7% + once a week 6.8%). Only 2.3% (n = 2) reported never using AI in their professional or educational contexts.

Table 2. AI tools used by child and adolescent psychiatrists (N = 88)

AI tools	Ever used, N (%)	Regular use, N (%)
ChatGPT	87 (98.9)	80 (90.9)
Gemini	55 (62.5)	17 (19.3)
DeepSeek	24 (27.3)	5 (5.7)
Grok	17 (19.3)	3 (3.4)
Consensus	16 (18.2)	13 (14.8)
Scite.ai	10 (11.4)	1 (1.1)
Claude	8 (9.1)	3 (3.4)
Elicit AI	5 (5.7)	2 (2.3)
Connected Papers	3 (3.4)	1 (1.1)
Research Rabbit	3 (3.4)	1 (1.1)
No tools used regularly	-	6 (6.8)

Multiple selections were permitted; percentages do not sum to 100%; “Ever used” indicates having tried the tool at least once; “Regular use” indicates self-reported ongoing use for professional/educational purposes; Participants selecting “No tools used regularly” may have reported prior (“ever”) use of one or more tools

Purposes of Use Across Domains

The purposes of AI use by child and adolescent psychiatrists are shown in Table 3. Notably, use of AI tools for clinical purposes was comparatively lower, including differential diagnosis (1.10, SD = 1.00), diagnostic evaluation (1.01, SD = 1.01), and treatment planning (0.92, SD = 0.77). Administrative/medicolegal writing tasks were also among the lowest (discharge summaries: 0.90, SD = 1.21; consultation responses: 0.85, SD = 1.21; forensic reports: 0.66, SD = 1.02).

Table 3. Purposes of AI use by child and adolescent psychiatrists

Purpose	Mean (S.D.)	Median (Range)
Preparing educational materials	2.52 (1.299)	3.00 (0-4.00)
Reaching up-to-date knowledge	2.41 (1.210)	2.00 (0-4.00)
Literature scanning	2.37 (1.365)	2.00 (0-4.00)
Following the latest developments	2.05 (1.243)	2.00 (0-4.00)
Manuscript writing	1.90 (1.455)	2.00 (0-4.00)
Searching for guidance/algorithms	1.87 (1.267)	2.00 (0-4.00)
Checking drug interactions	1.77 (1.037)	2.00 (0-4.00)
Hypothesis generating	1.67 (1.364)	1.00 (0-4.00)
Preparing patient information materials	1.41 (1.373)	1.00 (0-4.00)
Data analysis	1.38 (1.200)	1.00 (0-4.00)
Differential diagnosis	1.10 (0.995)	1.00 (0-3.00)
Diagnostic evaluation	1.01 (1.012)	1.00 (0-4.00)
Treatment planning	0.92 (0.770)	1.00 (0-2.00)
Writing discharge summaries	0.90 (1.208)	0.00 (0-4.00)
Preparing consultation responses	0.85 (1.209)	0.00 (0-4.00)
Writing forensic case reports	0.66 (1.023)	0.00 (0-4.00)

Responses were rated on a 0–4 frequency scale (0 = never to 4 = very often); Observed ranges reflect the sample distribution

Attitudes and Perceptions

Perceived risks and benefits of AI tool use in medicine

Item-level responses indicated the strongest endorsement of benefit statements related to increased research productivity (mean = 4.72, SD = 1.07), time savings (4.61, SD = 1.10), and improved education quality when trainers use AI (4.60, SD = 1.06). The most strongly endorsed risk statements were excessive dependence (4.51, SD = 1.25) and potential diminishment of physicians’ skills (4.04, SD = 1.28). Concerns about patient confidentiality and data security when real patient data are used (3.93, SD = 1.36), ethical problems (3.91, SD = 1.26), false diagnosis/misdiagnosis (3.89, SD = 1.00), and legal/professional responsibility (3.79, SD = 1.29) were also notable, whereas job loss concerns were comparatively low (2.75, SD = 1.38).

Concerns related to AI tool use in child and adolescent mental health practice

At the item level, the highest-rated concerns were limitations in evaluating nonverbal communication (mean = 4.91, SD = 1.06) and limitations in holistic/contextual evaluation of family dynamics (4.57, SD = 1.04), followed by concerns regarding developmental differences (4.28, SD = 1.10), autonomy/consent (4.28, SD = 1.21), and the complexity of neurodevelopmental disorders (4.23, SD = 1.26).

Approval of AI tool use for mental health-related purposes outside clinical settings

Item-level endorsement was highest for therapist-supervised AI use as an adjunctive support tool (mean = 3.79, SD = 1.24), whereas approval was lower for first evaluation/triage (2.76, SD = 1.30) and for families seeking AI advice on treatment (2.65, SD = 1.17). Approval was lower still for direct patient

interaction with AI (symptom disclosure to chatbots 2.43, SD = 1.05; adolescents engaging in therapeutic conversations 2.31, SD = 1.19), and lowest for medication/treatment advice from AI (1.73, SD = 1.08).

Scale Scores and Exploratory Correlations Between Variables

EFA supported a two-factor structure for the 15-item attitudes battery (Perceived Benefits: 7 items, $\alpha = .87$; Perceived Risks: 7 items, $\alpha = .88$), with one item retained as a standalone (job loss). Child/adolescent-specific concerns (5 items, $\alpha = .83$) and approval of out-of-clinic mental health–related uses (6 items, $\alpha = .81$) each formed a single factor (full diagnostics and loadings in Supplementary Material). Composite mean item scores indicated moderate endorsement of perceived benefits (M = 3.98, SD = 0.87) and risks (M = 3.96, SD = 0.97), high child/adolescent-specific concerns (M = 4.45, SD = 0.87), and comparatively low approval of out-of-clinic uses (M = 2.61, SD = 0.84). A summary of descriptive statistics is presented in Table 4. These composites are reported as exploratory, study-specific summaries and should not be interpreted as validated psychometric scales.

Exploratory correlates of AI tool use in professional/educational contexts revealed that more frequent AI tool use was moderately associated with higher self-rated AI knowledge (Spearman $\rho = 0.484$, $p < .001$) and greater congress attendance ($\rho = 0.452$, $p < .001$), and weakly associated with fewer years worked as a physician ($\rho = -0.235$, $p = .027$). More frequent AI use was also associated with higher perceived benefits ($\rho = 0.290$, $p = .006$), lower child/adolescent-specific concerns ($\rho = -0.359$, $p = .001$), and higher approval of out-of-clinic mental health–related uses ($\rho = 0.285$, $p = .007$), whereas the association with perceived risks was not significant ($\rho = -0.134$, $p = .214$).

Table 4. Descriptive statistics of composite scales (N = 88)

Scale	Items	Sum score Mean ± SD	Median (min-max)	Mean item score Mean ± SD	Median (min-max)
Risks	7	27.70 ± 6.78	28 (7–42)	3.96 ± 0.97	4.00 (1.00–6.00)
Benefits	7	27.84 ± 6.12	28 (8–42)	3.98 ± 0.87	4.00 (1.14–6.00)
Concerns	5	22.27 ± 4.36	23 (5–30)	4.45 ± 0.87	4.60 (1.00–6.00)
Approval	6	15.67 ± 5.04	16 (6–31)	2.61 ± 0.84	2.67 (1.00–5.17)

Mean item scores range from 1 to 6; sum-score ranges vary by the number of items; Observed ranges reflect the sample distribution

Exploratory Spearman correlations among the composite scales showed a consistent pattern. Perceived Benefits were negatively associated with perceived risks ($\rho = -0.438$, $p < .001$) and child/adolescent-specific concerns ($\rho = -0.298$, $p = .005$), and positively associated with approval of out-of-clinic mental health–related uses ($\rho = 0.455$, $p < .001$). Approval of out-of-

clinic mental health–related uses was negatively correlated with perceived risks ($\rho = -0.359$, $p = .001$) and child/adolescent-specific concerns ($\rho = -0.533$, $p < .001$). In addition, perceived risks and child/adolescent-specific concerns were strongly positively correlated ($\rho = 0.626$, $p < .001$). The full correlation matrix is given in the Supplementary Material.

Discussion

In this online convenience sample of child and adolescent psychiatrists and residents in Türkiye, exposure to AI tools was nearly universal, with ChatGPT dominant; many participants reported at least weekly use, and nearly half reported at least daily use, in professional or educational contexts. Uptake appears higher than that reported in earlier psychiatrist samples from other countries and in a recent Türkiye-based survey focused on ChatGPT [9,11,12], and is broadly consistent with the recent rapid diffusion of easily accessible generative AI tools in mental health settings. Recent psychiatrist-focused surveys and mixed-methods studies suggest that clinicians often view AI as potentially useful, but in a cautious and conditional way, particularly for efficiency, information support, education, and selected decision-support tasks rather than as a replacement for clinical judgment or empathic care [10-12]. In this context, our finding that AI use was widespread despite minimal formal training may reflect a broader pattern in which access and informal experimentation are expanding faster than structured governance, training, and institutional guidance.

Use patterns in our sample support an “augmentation, not automation” interpretation. Participants most often used AI tools for preparing educational materials, accessing up-to-date information, and literature scanning, whereas use for treatment planning, diagnostic evaluation, differential diagnosis, and medicolegal documentation was notably lower. This is consistent with the broader literature suggesting that clinicians are generally more comfortable with AI in lower-risk support roles than in high-accountability clinical tasks and contrasts with expectations that AI would primarily reduce documentation and administrative burdens [4,11]. The low uptake for documentation may reflect medicolegal risk sensitivity, privacy concerns, and reluctance to incorporate potentially unverifiable or erroneous content into high-accountability records. Literature on the use of AI in psychiatry indicates that AI may improve diagnostic support, treatment personalization, and workflow efficiency, but that widespread clinical adoption remains limited by concerns about validation, privacy, bias, interpretability, and integration with human care [13-16]. Our findings suggest that child and adolescent psychiatrists may already be drawing similar boundaries in practice, preferentially using AI for knowledge-support activities while showing greater hesitation toward uses that could directly shape clinical decisions or formal records.

A further strength of this study is its focus on child- and adolescent-specific concerns. In our sample, these concerns were highest for limitations in evaluating nonverbal communication and holistic family/contextual dynamics, followed by developmental differences, autonomy/consent, and the complexity of neurodevelopmental disorders. These concerns appear clinically coherent when considered alongside the youth-focused literature. Previous work in child and adolescent psychiatry suggests that AI applications are most developed in diagnosis and monitoring,

whereas intervention and treatment applications remain less mature and are still largely supported by pilot, feasibility, or early-stage trials [17-20]. Ethical discussions in youth settings also emphasize privacy, bias, transparency, informed consent, and the need for human oversight when minors are involved [16,21]. Accordingly, our respondents’ reservations may reflect not simple resistance to innovation, but recognition that pediatric mental health care depends heavily on developmental interpretation, family context, multi-informant assessment, relational nuance, and safeguarding awareness—domains that remain difficult to capture adequately through decontextualized AI interactions.

Approval of out-of-clinic mental health-related AI use in our study showed a clear supervision gradient: endorsement was highest for therapist-supervised adjunctive use and lowest for medication/treatment advice. This pattern supports the view that safeguards and clear boundaries are particularly important in pediatric mental health technologies [17-25]. Given psychiatrists’ reports that some patients consult chatbots before seeing a clinician [11], a harm-reduction approach may be warranted, including advising families to avoid sharing identifiable data, discouraging AI-based medication decisions, and encouraging discussion of AI-generated content during clinical visits. Based on previous literature, conversational agents and related digital mental health tools may show modest or moderate benefits, particularly for depressive symptoms, whereas effects for anxiety, stress, or broader well-being are less consistent, and long-term safety and effectiveness data remain limited [22-24]. In parallel, machine-learning-based treatment personalization and digital monitoring appear promising, but are not yet routine clinical practice in youth settings [17,25]. Against this background, it is understandable that participants in our sample were relatively more accepting of bounded, clinician-supervised adjunctive uses and distinctly less accepting of autonomous or unsupervised uses that might influence treatment decisions.

Despite frequent use, formal AI education was rare, indicating a notable implementation gap. This is again consistent with psychiatrist-focused and clinician-focused studies that describe limited AI literacy, low formal training exposure, and a need for clearer professional guidance, ethical frameworks, and competency-based education [11-13]. Taken together, our findings suggest that in child and adolescent psychiatry, AI adoption is already occurring informally in everyday professional life, but with boundaries that remain largely self-imposed rather than systematically guided. This may be especially important in a specialty where developmental sensitivity, family context, and safeguarding obligations increase the threshold for acceptable risk. Our results therefore support a cautious implementation pathway centered on training, supervision, verification norms, and risk-tiered governance. Lower-risk uses, such as education and literature support, may be reasonable entry points, whereas higher-risk uses, such as treatment planning, medicolegal writing,

or any use involving identifiable patient data, require clearer institutional safeguards and stronger professional standards [3].

This study provides timely, specialty-specific evidence from Türkiye, but several limitations should be noted. First, convenience sampling via WhatsApp groups and secondary sharing through department heads may have introduced self-selection bias and limited generalizability. Although the recruitment frame included two large national professional WhatsApp groups (approximately 930 and 900 members, respectively), overlap between these groups and additional invitations to residents in training outside the groups meant that a unique denominator and a precise response rate could not be calculated. In addition, because a contemporary official national denominator for actively practicing child and adolescent psychiatrists and residents in Türkiye was not publicly available from accessible national sources, the representativeness of the sample relative to the national workforce could not be quantified. Second, the cross-sectional, self-report design precludes causal inference and may be subject to recall or social desirability biases. “Regular use” was self-defined rather than anchored to a fixed frequency threshold. In addition, the factor-derived composite scores were constructed for descriptive and exploratory purposes and should not be interpreted as validated psychometric scales. Finally, the field is rapidly evolving, and patterns of AI use, attitudes, and training opportunities may change quickly as tools, policies, and institutional guidance develop. Future studies should examine how structured education, local policies, and emerging professional guidance influence actual AI-related practices, confidence, and risk behaviors over time.

Conclusion

AI tools have become embedded in the professional routines of child and adolescent psychiatrists in Türkiye despite minimal formal training. Clinicians primarily use these tools for learning and information support while expressing concerns specific to this area and low approval for unsupervised out-of-clinic or medication-related uses. These findings support competency-based training and risk-tiered, supervision-oriented policies to enable safe integration.

Ethical Approval

Ethics approval was obtained from the local ethical committee, Ankara Etlik City Hospital No. 1 Scientific Research Evaluation and Ethics Committee (17/11/2025; approval no: AEŞH-BADEK1-2025-572).

Patient Consent

Online informed consent was obtained from all participants. No direct identifiers (e.g., names, email addresses) were collected or exported into the analytic dataset. Data were stored in an access-restricted, password-protected account and were not shared with third parties.

Conflict of Interest

The authors confirm the absence of any conflicts associated with this work.

Funding

The authors declare that they have received no financial support for the study.

References

1. Ardic N, Dinc R. Artificial intelligence in healthcare: current regulatory landscape and future directions. *Br J Hosp Med (Lond)*. 2025;86:1-21.
2. Fahim YA, Hasani IW, Kabba S, Ragab WM. Artificial intelligence in healthcare and medicine: clinical applications, therapeutic advances, and future perspectives. *Eur J Med Res*. 2025;30:848.
3. Topol EJ. High-performance medicine: the convergence of human and artificial intelligence. *Nat Med*. 2019;25:44-56.
4. Blease C, Locher C, Leon-Carlyle M, Doraiswamy M. Artificial intelligence and the future of psychiatry: qualitative findings from a global physician survey. *Digit Health*. 2020;6:2055207620968355.
5. Warrington DJ, Holm S. Healthcare ethics and artificial intelligence: a UK doctor survey. *BMJ Open*. 2024;14:e089090.
6. Ayhan Y. The impact of artificial intelligence on psychiatry: benefits and concerns—an essay from a disputed “author”. *Turk Psikiyatri Derg*. 2023;34:65-7.
7. Ning Y, Teixayavong S, Shang Y, et al. Generative artificial intelligence and ethical considerations in health care: a scoping review and ethics checklist. *Lancet Digit Health*. 2024;6:e848-56.
8. Goldsmith M, Roberts LW. Ethical issues in child and adolescent psychiatry. *Focus (Am Psychiatr Publ)*. 2016;14:64-7.
9. Aral A, Gerdan G, Usta MB, Aral AE. From promise to practice: insights into ChatGPT-4o use in child and adolescent mental health from professionals. *Front Psychiatry*. 2025;16:1668814.
10. Doraiswamy PM, Blease C, Bodner K. Artificial intelligence and the future of psychiatry: insights from a global physician survey. *Artif Intell Med*. 2020;102:101753.
11. Blease C, Worthen A, Torous J. Psychiatrists’ experiences and opinions of generative artificial intelligence in mental healthcare: an online mixed methods survey. *Psychiatry Res*. 2024;333:115724.
12. Abiodun OA, Ajiboye PO, Salihu MO, et al. Psychiatrists’ and trainees’ knowledge, perception, and readiness for integration of artificial intelligence in mental health care in Nigeria. *BMC Psychiatry*. 2025;25:685.
13. Chen ZS, Kulkarni P, Galatzer-Levy IR, et al. Modern views of machine learning for precision psychiatry. *Patterns*. 2022;3:100602.
14. Lee EE, Torous J, De Choudhury M, et al. Artificial intelligence for mental health care: clinical applications, barriers, facilitators, and artificial wisdom. *Biol Psychiatry Cogn Neurosci Neuroimaging*. 2021;6:856-64.
15. Squires M, Tao X, Elangovan S, et al. Deep learning and machine learning in psychiatry: a survey of current progress in depression detection, diagnosis and treatment. *Brain Inform*. 2023;10:10.
16. Sun J, Lu T, Shao X, et al. Practical AI application in psychiatry: historical review and future directions. *Mol Psychiatry*. 2025;30:4399-408.
17. Welch V, Wy TJ, Ligezka A, et al. Use of mobile and wearable artificial intelligence in child and adolescent psychiatry: scoping review. *J Med Internet Res*. 2022;24:e33560.
18. Sharma G, Yaffe MJ, Ghadiri P, et al. Use of artificial intelligence in adolescents’ mental health care: systematic scoping review of current applications and future directions. *JMIR Ment Health*. 2025;12:e70438.
19. Dwyer D, Koutsouleris N. Annual research review: translational machine learning for child and adolescent psychiatry. *J Child Psychol Psychiatry*. 2022;63:421-43.

20. Till AC, Briganti G. Outcomes in machine learning models for child psychiatry: a systematic review of the literature. *Psychiatr Danub*. 2025;37:79-84.
21. Alfano L, Malcotti I, Ciliberti R. Psychotherapy, artificial intelligence and adolescents: ethical aspects. *J Prev Med Hyg*. 2023;64:E438-42.
22. Feng Y, Hang Y, Wu W, et al. Effectiveness of AI-driven conversational agents in improving mental health among young people: systematic review and meta-analysis. *J Med Internet Res*. 2025;27:e69639.
23. Balan R, Dobrea A, Poetar CR. Use of automated conversational agents in improving young population mental health: a scoping review. *NPJ Digit Med*. 2024;7:75.
24. Li J, Li Y, Hu Y, et al. Chatbot-delivered interventions for improving mental health among young people: a systematic review and meta-analysis. *Worldviews Evid Based Nurs*. 2025;22:e70059.
25. Gunlicks-Stoessel M, Liu Y, Parkhill C, et al. Adolescent, parent, and provider attitudes toward a machine learning based clinical decision support system for selecting treatment for youth depression. *BMC Med Inform Decis Mak*. 2024;24:4.