



EXPLORING THE ROLE OF AI IN EMOTIONAL SELF-REGULATION AMONG YOUTH: A SURVEY STUDY

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Abstract:

Many young people today face significant stress, overthinking, and anxiety from schoolwork, jobs, social pressures, and major life changes. Introverts often struggle more, feeling shy or drained around others, which leads to loneliness and trapped thoughts. Therapy is effective but costly, time-consuming, and inaccessible for many. In contrast, AI offers quick, free, anytime support via smartphones with simple tips to calm down and think positively. Previous studies suggest that AI based tools may support emotional regulation, though evidence remains limited and context dependent. This study uses an online survey to collect responses from young people. AI remains safe and effective when it directs users to professional help for severe issues. It can also reach those who hide worries, feel too shy to speak, or withdraw from friends and family due to fear of judgment. Overall, AI tools are perceived by many youth as accessible and non-judgmental sources of emotional support.

Keywords : Youth, Overthinking, Introverts, AI self-regulation, Affordable support

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Introduction:

Stress, overthinking, and anxiety are rising rapidly among young people aged 18–25. Academic pressure, career uncertainty, social comparison, and emotional isolation are major causes. Many youths avoid traditional therapy due to cost, stigma, or lack of access. AI tools such as chatbots and mental health applications offer accessible and private emotional support for users (Fitzpatrick et al., Inkster et al.). This research studies how AI helps youth regulate emotions and reduce stress, anxiety, and overthinking.

Literature

Review :

Previous studies indicate that AI-based mental health tools demonstrate potential in supporting emotional well-being and mitigating psychological distress. For instance, Bickmore et al. (2005) found that relational agents increased user comfort and engagement during mental health interactions [1]. Extending this research, Fitzpatrick et al. (2017) observed that chatbot-delivered

cognitive behavioral therapy contributed to reductions in depression and anxiety symptoms among young adults [2]. Similarly, Inkster et al. (2018) determined that mobile and conversational AI applications enhanced users' emotional awareness and fostered self-reflection [3]. Morris et al. (2018) also underscored the role of digitally mediated tools in facilitating emotional self-regulation through structured guidance and interactive support [6].

Recent research continues to explore the expanding role of AI in mental health contexts, particularly among adolescent and youth populations. Torous et al. (2020) emphasized that digital mental health tools, including AI-driven systems, improve accessibility and engagement, although outcomes are largely based on self-reported experiences rather than clinical assessments [7]. Lattie et al. (2022) conducted a systematic review and found that chatbot-based and AI-enabled interventions may support reductions in perceived stress and anxiety, but methodological

inconsistencies limit definitive conclusions [9]. Additionally, Fulmer et al. (2023) observed that users often perceive AI conversational agents as non-judgmental and supportive, increasing emotional openness and disclosure [10]. Despite these promising developments, recent literature consistently notes gaps in long-term evaluation, ethical considerations, and the need to clearly define AI's role as a complementary tool rather than a replacement for professional mental health care, particularly for youth [9], [11].

Methodology:

This study employed a **cross-sectional, survey-based quantitative design** to examine youth perceptions of

Survey Analysis:

AI-driven emotional self-regulation tools. Data were collected from **221 participants aged 18–25** using an online questionnaire distributed through convenience sampling. The survey included demographic items, questions on AI usage, and Likert-scale statements assessing perceived stress, anxiety, and overthinking. Participation was voluntary, anonymous, and based on informed consent. Data were analyzed using **descriptive statistics** (frequencies and percentages) and presented through tables and figures. The study focused on providing exploratory insights rather than making causal inferences.

<i>Survey Aspect</i>	<i>Result from Data</i>
Total Responses	221 participants
Age Group	Most were 20–21 years (102 respondents)

Gender	Majority were Male (126 respondents)
Education Status	Most were Postgraduate students (73)

Most Used AI Tool	ChatGPT (84 respondents)
Frequency of AI Use	Frequently (98 respondents)
Main Trigger to Use AI	Academic or work pressure (57)
Time AI Is Most Helpful	During school/work hours (77)
Reason for Choosing AI	No fear of judgment (51)
AI vs People	More comfortable to open up to AI (63)
Help in Overthinking	Gives logical explanations (80)
Change in Stress Level	Slightly decreased (107)
Most Helpful AI Feature	Journaling / reflection prompts (71)
Practical Stress Steps	Most selected option “2” (59 responses)

<i>Survey Aspect</i>	<i>Result from Data</i>
AI in Daily Life	Strongly agree (93)
Future of AI Support	Very likely (108)

Table 1: Demographic and AI Usage Characteristics of Survey Participants



Figure 1: Change in participants' stress levels after using AI

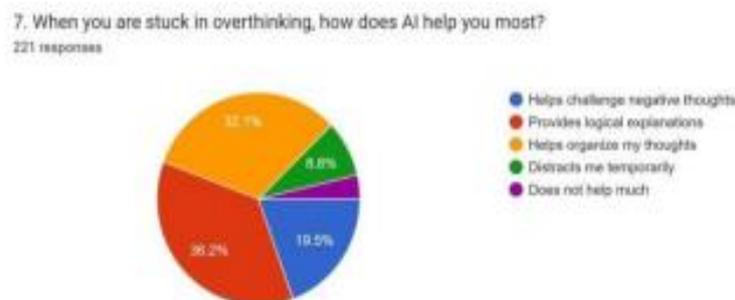


Figure 2: How AI assists participants when overthinking

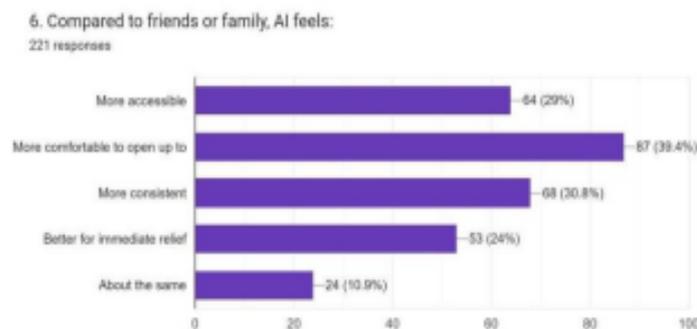


Figure 3: Likelihood of AI becoming a primary stress support system for young people.

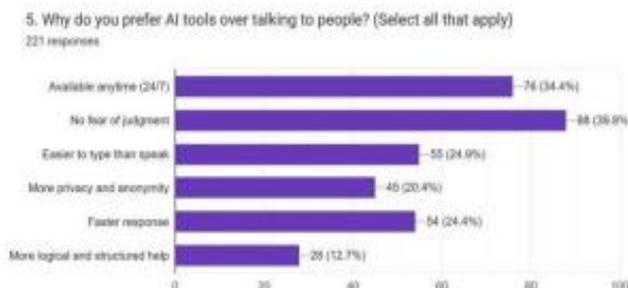


Figure 4: Reasons participants prefer AI tools to human interaction.

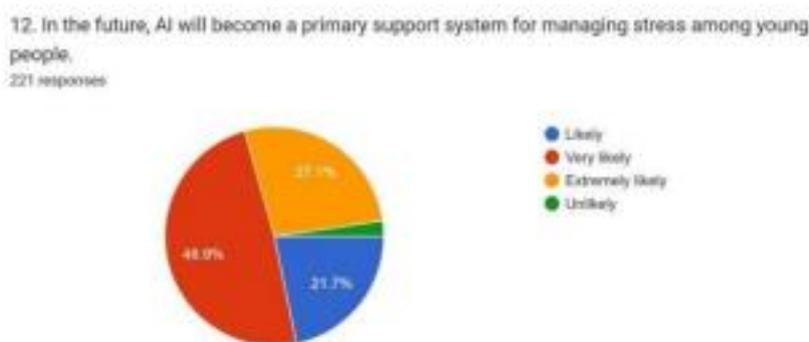


Figure 5: Participants' perceptions of AI versus friends or family.

Results / Findings :

A total of 221 responses were collected from youth aged 18–25. The most common age group was 20–21 years with 102 respondents. Out of all participants, 126 were male. The highest number of respondents were postgraduate students (73).

Regarding AI usage, ChatGPT was the most frequently used AI tool for stress or anxiety support, selected by 84 respondents. In terms of usage frequency, 98 participants reported using AI tools frequently for emotional regulation.

The most common trigger for using AI support tools was academic or work pressure, reported by 57 respondents. The time when AI was found most helpful was during school or work hours, chosen by 77 respondents.

For preference, 51 participants selected “no fear of judgment as the main reason for choosing AI over talking to people. When comparing AI with friends or family, 63 respondents said AI felt more comfortable

opening up to.

When stuck in overthinking, the most selected way AI helped was by providing logical explanations, chosen by 80 respondents. In terms of stress change after using AI, 107 respondents reported that their stress level had slightly decreased.

The most helpful AI feature was journaling or reflection prompts, selected by 71 respondents. For the statement “AI provides practical steps to manage my stress,” the most chosen option was scale point “2,” with 59 responses.

For future views, 93 respondents strongly agreed that AI-based mental health support should be integrated into daily life for youth. Additionally, 108 respondents reported that it is very likely that AI will become a primary support system for managing stress among young people.

Discussion:

The findings show that emotional pressure is common among youth aged 18–25, particularly in academic and

work settings. Many participants reported using AI tools regularly, and a large number preferred AI over people because it feels private and free from judgment. Features such as logical guidance, journaling, and reflection were identified as the most helpful. More than half of the respondents reported a decrease in stress after using AI-based tools.

These results suggest that AI is becoming a meaningful source of emotional support for young people. High usage during school and work hours shows that emotional strain is strongest during demanding daily tasks. The preference for AI due to its nonjudgmental nature indicates that many young people avoid sharing emotions because they fear misunderstanding or criticism. For these users, AI serves as a safe space for emotional expression.

When compared with previous research, these findings follow a similar trend. Earlier studies show that AI conversational systems can reduce emotional distress and increase feelings of support (Fitzpatrick et al., Inkster et al., Morris et al.) Research on machine empathy explains why users develop emotional connections with AI (Liu & Sundar, 2018). This study supports those conclusions and adds a youth-focused perspective, particularly on overthinking and everyday emotional regulation.

This study has limitations. Data was collected only through online responses, which may not represent all youth. The sample size is limited, and the results are based on self-reported experiences rather than clinical or long-term emotional assessment.

Future research should use larger and more diverse samples, include long-term emotional tracking, and compare AI support with professional therapy. This will help clearly define where AI is effective and where human support remains essential.

Conclusion:

Many young people use AI tools to manage stress, anxiety, and overthinking. These tools are private,

accessible, and nonjudgmental, providing structured guidance, prompts for self-reflection, and journaling exercises that help users reduce stress and regulate their emotions daily.

AI has limits as emotional support. It cannot fully grasp complex emotions, personal experiences, or serious mental health issues. Because AI lacks genuine empathy and clinical expertise, depending on it can weaken real social interactions and delay appropriate mental health treatment. Overreliance also raises concerns about privacy, dependency, and misleading guidance.

AI should function as a complementary tool, not a replacement for professional mental health care. It is most effective for early stress management, ongoing emotional support, and engaging individuals hesitant to seek help. When integrated into schools and youth programs alongside counselling, with rigorous ethical safeguards and clear referral protocols, AI can strengthen young people's emotional well-being.

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