



AI Chatbots vs Human Friends: Examining Student Preferences for Emotional Support

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Abstract

The rapid diffusion of artificial intelligence (AI) into everyday communication has changed the way people, and students in particular, seek emotional support and companionship. College life brings its own share of academic pressure, emotional instability, social comparison, and mental health strain, and a growing number of students are turning to AI chatbots as an additional emotional outlet alongside their human friendships. This paper looks specifically at how students weigh AI chatbots against human friends when they need emotional support. A descriptive research design was used, drawing on both primary and secondary data. Primary data came from a structured questionnaire completed by 200 respondents, most of them students based in Ludhiana, Punjab, while secondary data was drawn from academic journals, psychological research, and existing literature on emotional wellbeing and digital communication. The results show that students value AI chatbots for being instantly available, non-judgmental, private, and emotionally consistent, and they lean on these systems for stress relief, emotional expression, and a fresh perspective during anxious or academically demanding periods. Human friends, however, still lead by a wide margin when it comes to emotional authenticity, trust, empathy, bonding, and long-term psychological reassurance. Overall, the study suggests that AI chatbots work best as a complement to human relationships rather than a substitute for them. What appears to be

emerging instead is a hybrid emotional support ecosystem, in which AI helps with day-to-day emotional regulation while human friendships continue to anchor deeper emotional connection and stability. These findings add to the ongoing conversation about the behavioural and emotional consequences of AI-mediated interaction among students, and point to the need for thoughtful, responsible integration of AI within educational and emotional support settings.

Keywords: Artificial Intelligence, AI Chatbots, Emotional Support, Student Mental Health, Human Friends, Digital Companionship, Student Behaviour



1. Introduction

Human beings are, at their core, social creatures who rely on emotional connection for psychological stability and overall wellbeing. For most of human history, that support has come from family, friends, mentors, and peers — relationships that help people process emotions, cope with stress, and build resilience. For students, this kind of support carries extra weight, since academic life is rarely free of pressure, uncertainty, social comparison, and identity-related struggles. As competition intensifies around grades, careers, and social image, emotional support functions almost as a protective buffer, helping students manage anxiety, fear of failure, and the general exhaustion that comes with constantly being evaluated. Research on this point is fairly consistent: empathetic interactions and emotional validation contribute meaningfully to mental wellbeing and resilience in young adults (Cohen & Wills, 1985).

At the same time, the way students communicate has shifted considerably over the past decade. Social media, messaging apps, and online communities have become the default channels through which many young people express emotion and seek reassurance, often replacing face-to-face conversation altogether (Valkenburg & Peter, 2011). Artificial intelligence has entered this picture as well, moving well beyond academic support tools into something more personal. Chatbots built on machine learning and natural language processing can now hold a conversation, pick up on emotional cues, and respond in ways that feel remarkably human. As a result, many students no longer see them purely as technical tools but as something closer to a conversational companion. Part of the appeal is practical: chatbots are available around the clock, respond consistently, and create a space where students can admit to feeling anxious, lonely, or overwhelmed without worrying about being judged.

None of this, however, has diminished the emotional value of human friendship. Friends bring genuine empathy, shared history, and a kind of contextual understanding that no algorithm can fully reproduce, along with the trust and long-term bonding that come from lived experience. What seems to be happening instead is that AI-based and human-based support are increasingly coexisting — some students treat chatbots as a supplement, others still rely mainly on friends, and the balance between the two raises real questions about emotional authenticity, dependency, and the future shape of interpersonal relationships. While digital communication, mental health, and AI adoption have each been studied fairly extensively on their own, comparatively little research places AI chatbots and human friends side by side as competing (or complementary) sources of emotional support, particularly from the students' own point of view. It is still unclear, for instance, why students might choose a chatbot over a friend in a given moment, how trust in each differs, or how dependency patterns are evolving on campuses. This study sets out to address that gap by examining how students in Ludhiana, Punjab, choose between AI chatbots and human friends for emotional support, what role each plays in emotional regulation and coping, and whether AI chatbots are best understood as a replacement for human relationships or simply a complement to them. In doing so, it hopes to offer some practical insight for educators, mental health professionals, and AI developers thinking about how these tools should be integrated responsibly into students' emotional lives.

2. Review of Literature

Al-Zahrani (2025) examined how AI chatbots shape students' relational dynamics and emotional support in higher education, reporting that students increasingly turn to these tools for both academic help and emotional reassurance, underscoring how deeply AI has become embedded in student support ecosystems.

Carter et al. (2025) explored the emotional costs of AI chatbots in education, raising concerns about emotional dependency, weakening interpersonal communication, and the risk of psychological overreliance on AI-mediated interaction.



Merrill Jr. (2025) studied AI chatbots as a form of virtual social relationship, finding that students often gravitate toward AI during emotionally vulnerable moments because it removes the fear of embarrassment, judgment, or social stigma.

Naik et al. (2025) looked at artificial empathy in AI-driven mental health tools and concluded that while chatbots can simulate empathy through pattern recognition, they fall short of replicating genuine human emotional understanding.

Audrin (2024) analysed emotional intelligence in digital interaction among students, finding that digital natives increasingly treat technology-mediated conversation as a normal channel for emotional expression.

Labadze (2023) examined chatbot use for emotional dialogue and reassurance, noting that students see chatbots as accessible, emotionally safe, and non-judgmental spaces to talk.

Chin (2023) studied round-the-clock AI availability and found that constant accessibility is a major reason students prefer AI-mediated emotional interaction.

Limone (2022) traced the broader transformation of communication in digital environments, showing how digital tools reshape emotional expression and social behaviour among students.

Chen (2022) investigated the emotional consequences of reduced face-to-face contact, finding that heavier reliance on online interaction can weaken emotional depth even as it increases dependency on digital platforms.

Twenge (2019) examined how digital culture has altered emotional behaviour among youth, pointing to changing communication habits and rising dependence on digital interaction.

Primack et al. (2017) linked heavy social media exposure to loneliness, anxiety, and emotional comparison among young people.

Eisenberg et al. (2013) documented rising emotional distress, anxiety, and depression among university students, alongside growing demand for campus counselling services.

Przybylski et al. (2013) studied digital anxiety and emotional fragmentation, finding that constant technological engagement contributes to emotional overload and exhaustion.

Nadkarni & Hofmann (2012) explored the motivations behind social media use, showing that online interaction often satisfies needs for validation, belonging, and reassurance.

Valkenburg & Peter (2011) found that digital natives often prefer online communication for emotional conversations because it lowers social pressure and vulnerability.

Taylor (2011) situated emotional support within human evolutionary and social behaviour, arguing that supportive relationships build psychological resilience and coping capacity.

Rickwood et al. (2005) identified fear of judgment, embarrassment, and stigma as key barriers that stop students from seeking emotional help.

Diener & Seligman (2002) linked strong interpersonal bonds to better emotional resilience and psychological stability among students.

Fredrickson (2001) showed that positive emotions and supportive social interaction broaden emotional capacity and improve mental health outcomes.



Arnett (2000) described heightened emotional vulnerability among adolescents and young adults navigating identity formation, academic pressure, and social transitions.

Wentzel (1998) found that supportive teachers and mentors positively shape emotional confidence, motivation, and academic performance.

Furman & Buhrmester (1992) showed that adolescent friendships provide reassurance, companionship, and psychological comfort during stressful periods.

Reis & Shaver (1988) linked emotional intimacy and psychological safety in relationships to greater emotional wellbeing and relationship satisfaction.

Bowlby (1988) used attachment theory to show how family bonds and close relationships underpin emotional security and psychological development.

Cohen & Wills (1985) used stress-buffering models to explain how social support reduces emotional distress and strengthens coping ability.

Lazarus & Folkman (1984) showed that emotional support helps people interpret stressful situations more positively and maintain emotional balance.

3. Research Gap

Taken together, the studies above have looked closely at emotional wellbeing, digital communication, social media behaviour, and AI adoption, but mostly as separate strands of research. Most existing work on AI chatbots approaches the subject from a technological or academic-performance angle rather than an emotional or psychological one, and while youth mental health and digital communication are well covered individually, few studies ask directly why students turn to chatbots specifically during emotionally difficult moments. There is also little direct comparison of emotional authenticity, trust, empathy, accessibility, and satisfaction between AI-based support and human friendship, and the long-term psychological effects of relying on chatbots for emotional needs remain largely unexamined. This gap is even wider in the Indian context, especially in Tier-II cities such as Ludhiana, where the emotional experiences and support preferences of students in relation to AI have received very little research attention. This study attempts to address that gap by directly comparing AI chatbots and human friends as emotional support systems and by examining the emotional, psychological, and behavioural dimensions of that comparison.

4. Research Objectives

The study is guided by three broad objectives:

- To examine students' preferences between AI chatbots and human friends for emotional support.
- To identify the factors — such as trust, empathy, accessibility, and anonymity — that shape students' choice of emotional support systems.
- To assess whether AI chatbots function as a complement to human relationships or as a genuine substitute for them.



5. Research Methodology

A descriptive research design was used for this study, as it suits the task of mapping out existing emotional behaviour patterns and understanding how students choose between different sources of support. Both primary and secondary data were used. Primary data was gathered through a structured questionnaire covering emotional wellbeing, AI chatbot usage, emotional dependency, trust, stress management, help-seeking behaviour, and student perceptions of both human friendships and AI-based interaction. Secondary data was drawn from academic journals, research papers, psychological studies, and existing literature on AI, digital communication, and student mental health, which together helped frame the study's theoretical background.

The sampling universe consisted of students aged 18 to 25 residing in Ludhiana, Punjab — a group chosen because they are among the heaviest users of digital communication and AI chatbots while also experiencing considerable academic and emotional pressure. A convenience sampling technique was used, which made it easier to reach respondents within this demographic, even though it does limit how far the findings can be generalised. In total, 200 respondents took part, including undergraduate and postgraduate students, young professionals in academic programs, and other digitally active individuals familiar with AI chatbots and online communication. Ludhiana was selected as the geographical focus because it represents a fast-growing urban educational hub with rising technological exposure among young people. The data collected was examined using percentage analysis, graphical interpretation, and comparative and descriptive interpretation to identify patterns in emotional support preferences and behaviour.

6. Data Analysis and Interpretation

6.1 Demographic Profile of Respondents

Most respondents fell within the 18–25 age bracket, reflecting strong participation from digitally active undergraduate and postgraduate students exposed regularly to social media and AI tools. Both male and female respondents took part, suggesting that AI chatbot usage and emotional support preferences cut across gender lines, and the sample drew on a fairly diverse mix of educational and social backgrounds.

Age Group	Responses
18–21	31
22–25	96
26–29	19
30–33	20
34–37	10
38–41	3
42–45	13
46–50	5

Table 1: Age Group and Response Distribution

6.2 AI Chatbot Usage Behaviour

A sizeable share of respondents said they interact with AI chatbots regularly — for emotional expression, academic help, stress relief, and general guidance — and many attributed this to the comfort of instant, non-judgmental availability. A notable proportion felt they could express emotions more freely with AI than with people, largely



because they worry less about being criticised, embarrassed, or misunderstood. Convenience was another recurring theme: several respondents said chatbots were especially useful during late-night anxiety, exam stress, loneliness, or emotional confusion, situations where human support isn't always within reach. Students also used chatbots to gain a different perspective, find reassurance, and manage stress, describing the experience as calming and emotionally stabilising during overwhelming moments.

Usage Frequency	Responses	Percentage (%)
Daily	50	24.8
Several times a week	54	26.7
Once a week	44	21.8
Rarely	44	21.8
Never	10	5

Table 2: AI Chatbot Usage Patterns

6.3 Emotional Support Through Human Friends

Despite this growing comfort with AI, human friendships remain the most trusted source of emotional support by a clear margin. Respondents consistently pointed to the authenticity, empathy, and warmth of human friendship as things AI simply cannot replicate, largely because friends bring shared history and lived context to a conversation that a chatbot cannot. Emotional reassurance from a friend was seen as more meaningful and trustworthy than anything AI-generated, and respondents placed real value on physical presence, non-verbal cues, and the mutual emotional investment that defines close friendship. While many acknowledged that chatbots are useful for short-term relief, most felt they could not match the depth, loyalty, and long-term connection that human friendships provide.

6.4 Comparative Analysis: AI Chatbots vs Human Friends

The comparison shows a fairly clear division in how students use each source of support, depending on the emotional situation.

AI chatbots were preferred for:

- Immediate emotional support
- Privacy and anonymity
- Non-judgmental conversations
- Emotional consistency
- Accessibility during stress
- Quick reassurance

Human friends were preferred for:

- Genuine empathy
- Emotional authenticity
- Trust and loyalty
- Long-term emotional bonding



- Shared experiences
- Deep emotional understanding

Overall, students appear to treat AI chatbots as a supplement rather than a substitute for human friendship, turning to them mainly when human support feels inaccessible, uncomfortable, or socially risky. It was also noticeable that students with higher social anxiety or more introverted tendencies leaned more heavily on AI, likely because it removes the interpersonal pressure and fear of judgment that can accompany human interaction.

6.5 Psychological Impact of AI-Mediated Emotional Support

On balance, AI chatbots appear to support emotional expression, release, and short-term stress reduction. Several respondents said they felt emotionally lighter after talking to a chatbot during a stressful moment, and many appreciated its calm, patient conversational style as a way to organise their thoughts and reflect during uncertain times. That said, the study also picked up some concern about dependency — a number of respondents worried that leaning too heavily on AI for emotional reassurance could gradually erode real-world interpersonal skills. In other words, AI chatbots seem to offer genuine psychological convenience, but that convenience carries a trade-off if it starts replacing rather than supplementing human interaction.

7. Comparison with Previous Studies

The picture that emerges from this study — students using AI chatbots for stress relief, emotional expression, and reassurance, while still turning to human friends for deeper emotional needs — fits closely with existing research. The finding that round-the-clock accessibility drives student preference for AI interaction echoes Chin (2023), while the idea that chatbots offer an emotionally safe space that lowers hesitation around disclosure lines up with Labadze (2023). Similarly, Al-Zahrani (2025) found that students increasingly rely on AI not just academically but emotionally, which mirrors what respondents in this study reported about using chatbots to manage emotional overload and gain perspective during stressful periods.

The preference for AI during emotionally vulnerable moments, driven by a wish to avoid judgment or embarrassment, matches Merrill Jr. (2025) closely, and connects to Rickwood et al. (2005), who identified fear of stigma as a major barrier to seeking help from other people. Several respondents in this study said much the same thing — they simply felt safer discussing sensitive issues with a chatbot than with another person. The short-term emotional relief that AI chatbots provide also fits with Carter et al. (2025), who described AI as an emerging coping tool for students under psychological strain.

At the same time, the clear preference for human friends when it comes to authenticity, trust, warmth, empathy, and bonding lines up with a long tradition of research on interpersonal relationships. Reis and Shaver (1988) linked emotional intimacy and psychological safety to stronger wellbeing, Furman and Buhrmester (1992) showed how friendships provide reassurance and comfort during stress, and Diener and Seligman (2002) tied supportive relationships to greater resilience — all of which resonate with how respondents in this study described their human friendships. The belief that AI-generated empathy lacks real emotional depth also matches Naik et al. (2025), who argued that chatbots simulate empathy algorithmically rather than experiencing it, and this study's respondents expressed a very similar view.

More broadly, the findings support Twenge (2019) and Valkenburg and Peter (2011) in suggesting that digital tools are reshaping emotional interaction among young people, and align with Audrin (2024) in showing that digital natives are increasingly comfortable treating technology-mediated conversation as a normal emotional outlet. But this study also picked up on the same concerns raised by Carter et al. (2025) about overdependence — several respondents worried that excessive AI use could weaken face-to-face communication over time. Put together, these



findings largely confirm the existing literature while reinforcing one central point: AI chatbots are best understood as a complement to human emotional relationships, not a replacement for them.

8. Conclusion

The growing presence of AI in everyday communication is clearly reshaping how students seek emotional support, offering an accessible, private, and consistently non-judgmental outlet for stress, anxiety, and loneliness. Yet human friendship continues to hold a place that AI cannot fill — one built on genuine empathy, authenticity, trust, shared history, and long-term emotional bonding. What this study suggests, overall, is that AI chatbots work best as a complementary layer of emotional support rather than a substitute for real relationships. Students appear to be settling into a kind of hybrid emotional support ecosystem, where AI helps with immediate regulation and reassurance while human friendship remains the foundation for lasting emotional wellbeing. This shift also raises legitimate questions about dependency, reduced face-to-face interaction, and the changing texture of human communication, which makes a thoughtful, responsible approach to integrating AI into educational and emotional support settings all the more important. Looking ahead, the future of emotional support for students is likely to be shaped less by competition between AI and human connection, and more by how well the two can work alongside each other — with human relationships remaining central, and AI serving as a steady companion in moments of need.

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