International Journal of Science and Research (IJSR)
ISSN: 2319-7064
Impact Factor 2025: 7.089

AI Companionship and Psychological Well-Being Among Gen Z Adults: A Cross-Sectional Correlational Study

Dhruti Gajiwala

Abstract: ***This study examined the relationship between AI companionship- operationalized as attachment anxiety and avoidance toward AI- and psychological well-being among 50 Gen Z adults (aged 18–29) in India. Using the Experiences in Human-AI Relationships Scale (EHARS) and the WHO-5 Well-Being Index, the study found no significant associations between attachment to AI and well-being. These findings, though limited by sample size and design constraints, contribute to the growing literature on human-AI relationships in non-Western contexts.***

Keywords: AI companionship; attachment anxiety toward AI; attachment avoidance toward AI; psychological well-being; Gen Z adults; India

1. Introduction

Artificial intelligence has evolved beyond simple task completion to encompass extended conversational interactions. Generative AI systems like ChatGPT and Gemini can now engage users in discussions about personal problems, offer emotional support, and respond to sensitive topics. For some users, these repeated interactions may begin to feel less like using a tool and more like interacting with a social presence.

This phenomenon- termed "AI companionship"- raises important questions about psychological well-being. Does forming emotional bonds with AI systems enhance or diminish human flourishing? Existing research presents conflicting findings. Some studies suggest AI companionship compensates for social deficits and benefits lonely individuals, while others indicate it may displace human relationships and erode well-being over time.

The present study addresses this gap by examining whether attachment anxiety and avoidance toward AI predict psychological well-being among Gen Z adults in India- a population underrepresented in existing research despite India being one of the largest markets for conversational AI.

2. Theoretical Framework

The study draws on four theoretical perspectives:
Attachment Theory suggests that users may develop attachment-like bonds with AI systems that parallel human attachment patterns, characterized by anxiety (fear of rejection) and avoidance (discomfort with closeness).

Need to Belong Theory proposes that the fundamental human motivation for social connection may lead some individuals to seek companionship from AI when human relationships are unavailable or unsatisfying.

Social Compensation Hypothesis predicts that lonely or socially anxious individuals may turn to AI companions to compensate for deficient human connection, potentially improving well-being.

Displacement Hypothesis warns that emotional investment in AI relationships may crowd out in-person interaction, ultimately reducing well-being.

3. Methodology

Participants
The sample consisted of 50 Gen Z adults aged 18–29 years with experience using conversational AI, recruited through convenience and purposive sampling via online platforms and educational networks. Most participants (48%) were aged 24–26, employed full-time (58%), and held bachelor's degrees (60%).

Measures

Demographic and AI-Use Questionnaire collected information on age, education, occupation, AI systems used, frequency and duration of use, and primary reasons for AI interaction.

Experiences in Human-AI Relationships Scale (EHARS) measured attachment anxiety (4 items) and avoidance (3 items) toward AI using a 7-point scale.

WHO-5 Well-Being Index assessed positive psychological well-being over the previous two weeks, with scores converted to a 0–100 percentage.

Procedure
Participants completed an online questionnaire taking approximately 5–10 minutes. The study followed ethical guidelines including informed consent, voluntary participation, confidentiality, and the right to withdraw.

Data Analysis
Descriptive statistics, Cronbach's alpha, Pearson's correlations, and multiple linear regression were conducted using SPSS.

4. Results

AI Use Patterns

ChatGPT was the most commonly used AI system (46%), followed by Gemini (34%). Most participants used AI 3–5 days weekly (36%) or 1–2 days weekly (32%), with session durations typically 31–60 minutes (42%). The most common primary reasons for AI use were finding information (26%), creative work (24%), and study/work tasks (22%).

Notably, only 4% reported casual conversation or companionship as their primary reason for AI use, and only 2% reported "definitely" thinking of AI as a companion or friend.

Descriptive Statistics

Variable	M	SD	α
Attachment anxiety toward AI	2.58	0.87	.57
Attachment avoidance toward AI	3.63	1.12	.59
WHO-5 well-being	66.00	11.32	.63

Mean well-being scores (66.00) were above the conventional threshold of 50, suggesting generally adequate well-being in this sample.

Hypothesis Testing

H1: Attachment anxiety toward AI was not significantly correlated with well-being ($r = .04$, $p = .78$).
H2: Attachment avoidance toward AI was not significantly correlated with well-being ($r = -.09$, $p = .54$).
H3: Together, attachment anxiety and avoidance did not significantly predict well-being ($R^2 = .008$, $F(2,47) = 0.19$, $p = .83$).
A notable finding was a significant negative correlation between attachment anxiety and avoidance ($r = -.50$, $p < .001$), suggesting these dimensions were not orthogonal in this sample.

5. Discussion

Interpretation of Findings

Neither attachment dimension predicted well-being in this sample. Effect sizes were minimal, indicating that the relational bond with AI explained almost no variance in psychological well-being.

These null findings may be explained by sample characteristics. Participants primarily used general-purpose AI systems (ChatGPT, Gemini) rather than dedicated companion platforms (e.g., Character.AI, Replika). Dedicated platforms are designed to foster emotional bonds, whereas general-purpose systems serve primarily as information tools. The low proportion reporting companionship as their primary use (4%) suggests this sample was not characterized by high levels of AI companionship.

Comparison with Previous Literature

The findings align with Jain et al. (2026), who reported largely non-significant associations between conversational AI use and psychosocial outcomes among Indian young adults. However, results contrast with Zhang et al. (2026), who found companionship-oriented use associated with lower well-being among Character.AI users.

This discrepancy supports a contingency perspective: AI companionship effects depend on the type of system, user motivations, and social context. In samples where AI is not primarily used for companionship, expected associations may not emerge.

Implications

The findings suggest that AI companionship may not significantly predict well-being among Indian Gen Z adults who primarily use general-purpose AI. However, this does not mean AI companionship is irrelevant—rather, the relationship appears more complex and context-dependent than initially hypothesized.

Researchers and practitioners should consider:
- The type of AI system (dedicated companion vs. general-purpose)
- User motivations and expectations
- Broader social and cultural context

6. Limitations

- **Cross-sectional design** prevents causal conclusions
- **Small sample size** (N = 50) limits statistical power and generalizability
- **Self-report data** susceptible to social desirability and recall bias
- **Measurement limitations** including low internal consistency and unvalidated psychometric properties in Indian contexts
- **Sample characteristics** primarily general-purpose AI users rather than companion platform users
- **Missing demographic variable** (gender not recorded)
- **Rapidly evolving technology** may limit applicability to future AI systems

7. Future Research Directions

Future studies should:
- Employ longitudinal designs to establish causal direction
- Recruit larger, more representative samples including companion platform users
- Develop culturally validated measures for Indian populations
- Compare dedicated companion platforms with general-purpose AI
- Examine loneliness and social support as moderators or mediators
- Conduct qualitative interviews to understand user experiences

8. Conclusion

In this sample of 50 Gen Z adults, AI companionship-operationalized as attachment anxiety and avoidance toward AI- was not significantly associated with psychological well-being. The findings do not support the hypothesis that the relational bond with AI predicts well-being in this population.

However, given the small sample and cross-sectional design, these results should be interpreted cautiously. The study contributes to emerging literature on human-AI interaction by providing an Indian Gen Z perspective and highlighting the need for further research with larger, more diverse samples and validated measures of AI companionship.

As AI becomes increasingly integrated into social and emotional contexts, understanding its psychological implications remains a critical area for research- one that requires nuanced, context-sensitive approaches rather than assumptions about AI's inherent benefits or harms.

References

[1] Ainsworth, M. D. S., Blehar, M. C., Waters, E., & Wall, S. (1978). *Patterns of attachment: A psychological study of the strange situation*. Lawrence Erlbaum.
[2] Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin, 117*(3), 497–529.
[3] Bowlby, J. (1969). *Attachment and loss: Vol. 1. Attachment*. Basic Books.
[4] Brandtzaeg, P. B., Skjuve, M., & Følstad, A. (2022). My AI friend: How users of a social chatbot understand their human-AI friendship. *Human Communication Research, 48*(3), 404–429.
[5] Jain, G., Patole, E., & Pareek, S. (2026). Digital companionship: The interplay of conversational AI, loneliness, social anxiety, and quality of life among young adults. *Acta Psychologica, 264*, 106467.
[6] Kasturiratna, K. T. A. S., & Hartanto, A. (2026). Attachment to artificial intelligence: Development of the AI Attachment Scale, construct validation, and the psychological mechanisms of human-AI attachment. *Computers in Human Behavior Reports, 21*, 100912.
[7] Skjuve, M., Følstad, A., Fostervold, K. I., & Brandtzaeg, P. (2021). My chatbot companion—A study of human-chatbot relationships. *International Journal of Human-Computer Studies, 149*, 102601.
[8] World Health Organization. (2024). *The World Health Organization-Five Well-Being Index (WHO-5)*.
[9] Yang, F., & Oshio, A. (2025). Using attachment theory to conceptualize and measure the experiences in human-AI relationships. *Current Psychology*.
[10] Zhang, Y., Zhao, D., Hancock, J. T., Kraut, R., & Yang, D. (2026). Interaction with AI companions and psychological well-being. *Nature Human Behaviour*, 1–15.