Self-Disclosure to AI Chatbots And Interpersonal Intimacy Among Young Adults: A Correlational Study

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***Abstract*—Artificial intelligence (AI) chatbots have become an important part of everyday communication. Young adults increasingly use these applications for information, academic assistance, personal expression, and emotional support. This study aimed to examine the relationship between self-disclosure to AI chatbots or companion applications and intimacy in close human relationships. It also investigated whether gender influences this relationship. A correlational research design was adopted. The sample consisted of 19 young adults aged 18–30 years, including 8 males and 11 females. Data were collected using the Revised Self-Disclosure Scale (RSDS) and the Functional Analytic Psychotherapy Intimacy Scale (FAPIS). Pearson's product-moment correlation and multiple regression analysis were used to examine the data. The findings showed a weak positive but statistically non-significant relationship between self-disclosure to AI chatbots and interpersonal intimacy (r = .13, p = .606). Gender also did not significantly moderate this relationship. The findings indicate that sharing personal information with AI chatbots does not necessarily lead to greater intimacy in human relationships. The study highlights the importance of understanding how young adults use AI and how digital communication relates to their real-life relationships.**

***Index Terms*—Artificial intelligence, AI chatbots, self-disclosure, interpersonal intimacy, young adults, gender.**

I. INTRODUCTION

Artificial intelligence has become an important part of modern life. AI chatbots and companion applications are increasingly used by young adults for communication, information, academic assistance, and emotional expression. These applications allow users to interact through natural language and receive immediate responses. Some people also use them to discuss personal problems, share feelings, and seek emotional support.

Self-disclosure refers to the process of sharing personal information, thoughts, feelings, and experiences with another person or communication partner (Jourard, 1971). It plays an important role in developing trust and emotional closeness. In human relationships, sharing personal experiences helps individuals understand each other and develop meaningful connections.

AI chatbots provide an easily accessible space where users can express themselves without the fear of direct social judgment. Croes et al. (2024) found that individuals may be willing to share intimate information with chatbots because of perceived privacy and reduced fear of judgment. Similarly, Ho et al. (2018) observed that self-disclosure during chatbot interactions can have psychological and emotional effects.

Interpersonal intimacy refers to emotional closeness, trust, openness, understanding, and the willingness to share personal experiences with important people in one's life. According to Reis and Shaver (1988), intimacy develops through personal disclosure and the experience of being understood and accepted by another person. Laurenceau et al. (1998) also highlighted the importance of self-disclosure and perceived partner responsiveness in developing intimacy.

However, disclosing personal information to an AI chatbot may not have the same meaning as sharing feelings with a human being. AI applications can provide responses and emotional reassurance, but they cannot fully replace mutual human understanding and

relationships.

Gender may also influence patterns of self-disclosure and the purpose of chatbot use. Individuals may differ in their willingness to share personal information and their reasons for using AI applications.

Considering the increasing use of AI among young adults, the present study examines whether self-disclosure to AI chatbots is associated with intimacy in close human relationships. It also explores whether gender plays a moderating role in this relationship.

II. REVIEW OF LITERATURE

Ho et al. (2018) examined the psychological, relational, and emotional effects of self-disclosure after conversations with chatbots. Their findings suggested that chatbot interactions can provide opportunities for personal expression and may produce meaningful emotional experiences.

Reis and Shaver (1988) explained intimacy as an interpersonal process involving personal disclosure, understanding, and responsiveness. Their theoretical perspective suggests that emotional closeness develops when individuals feel understood and accepted.

Laurenceau et al. (1998) studied intimacy in interpersonal relationships and highlighted the importance of self-disclosure, partner disclosure, and perceived responsiveness. Their work provides a theoretical foundation for understanding the connection between communication and emotional closeness.

Croes et al. (2024) investigated the willingness of individuals to disclose intimate information to chatbots. Their research indicated that chatbot interactions may reduce the fear of judgment and encourage personal disclosure.

Skjuve et al. (2023) examined self-disclosure in human–chatbot relationships over time. Their research highlighted the importance of ongoing interactions in understanding how users develop communication patterns with chatbots.

Overall, previous research suggests that AI chatbots can provide opportunities for personal expression. However, the relationship between disclosure to AI and intimacy in real-life human relationships requires further investigation.

III. OBJECTIVES OF THE STUDY

1. To examine the extent and nature of self-disclosure to AI chatbots among young adults.
2. To study the relationship between self-disclosure to AI chatbots and intimacy in close human relationships.
3. To investigate whether gender moderates the relationship between self-disclosure to AI chatbots and interpersonal intimacy.

HYPOTHESES

H1: There will be a significant relationship between self-disclosure to AI chatbots or companion applications and intimacy in close human relationships.

H2: Gender will significantly moderate the relationship between self-disclosure to AI chatbots or companion applications and intimacy in close human relationships.

IV. METHODOLOGY

Research Design

The study adopted a descriptive correlational research design. This design was selected to examine the relationship between self-disclosure to AI chatbots and interpersonal intimacy and to investigate the moderating role of gender.

Sample

The sample consisted of 19 young adults between 18 and 30 years of age. It included 8 male and 11 female participants. Most participants were from Maharashtra, while a few were from other parts of India.

Convenience, purposive, and snowball sampling methods were used to collect data. Participants were required to have some familiarity with AI chatbot or companion applications and provide informed consent.

Tools Used

1. Revised Self-Disclosure Scale (RSDS):

The Revised Self-Disclosure Scale developed by Wheeless and Grotz (1976) was used to measure self-disclosure to AI chatbots or companion applications. It consists of 31 items and measures five dimensions:

intended disclosure, amount of disclosure, control of depth, positive–negative disclosure, and honesty–accuracy of disclosure. Higher scores indicate greater self-disclosure.

2. Functional Analytic Psychotherapy Intimacy Scale (FAPIS):

The FAP Intimacy Scale developed by Leonard et al. (2014) was used to measure intimacy in close human relationships. It consists of 14 items covering hidden thoughts and feelings, expression of positive feelings, and honesty and genuineness. Higher scores indicate greater intimacy.

Procedure

Data were collected through an online Google Form. Participants were informed about the purpose of the study and the voluntary nature of participation. After obtaining informed consent, demographic information and responses to both psychological scales were collected.

The collected responses were checked for completeness and analysed using appropriate statistical techniques.

Statistical Analysis

Descriptive statistics, including mean and standard deviation, were calculated. Pearson's product-moment correlation was used to examine the relationship between the two main variables. Multiple regression analysis was conducted to examine the moderating role of gender. The significance level was set at .05.

Results

The study included 19 participants, comprising 8 males and 11 females. Most participants were students (73.7%). Regarding AI chatbot use, 47.4% reported daily or almost daily use, while 42.1% used chatbots several times per week. Academic assistance (84.2%) and information seeking (68.4%) were the most common purposes of use.

Table 1 *Descriptive Statistics of Study Variables (N = 19)*

Variables	Mean	SD
Self-disclosure to AI chatbots	137.80	11.33
Intimacy in close human relationships	53.80	19.33

The results indicate that the mean self-disclosure score was 137.80, while the mean intimacy score was 53.80.

Relationship Between Self-Disclosure and Interpersonal Intimacy

Pearson's correlation was calculated to examine the relationship between self-disclosure to AI chatbots and intimacy in close human relationships.

Table 2 *Correlation Between Self-Disclosure and Interpersonal Intimacy*

Variables	r	df	p
Self-disclosure and intimacy	.13	17	.606

The findings revealed a weak positive correlation between self-disclosure to AI chatbots and interpersonal intimacy, r (17) = .13, p = .606. However, the relationship was not statistically significant. Therefore, Hypothesis 1 was not supported.

Moderating Role of Gender

Multiple regression analysis was conducted to examine whether gender moderated the relationship between self-disclosure and intimacy.

The overall regression model was reported as statistically significant, F(3, 15) = 3.20, p = .047, explaining 39% of the variance in intimacy scores (R^2 = .39). However, the individual predictors did not reach statistical significance at the .05 level:

Predictor	B	SE	β	t	p	95% CI for B
Self-disclosure to AI chatbot/companion	1.1	0.57	.65	1.94	.071	[-0.11, 2.31]
Gender	202.12	98.80	5.30	2.05	.059	[-8.47, 412.71]
Self-disclosure × Gender	-1.33	O.71	-4.83	-1.86	.82	[-2.85, 0.19]

The interaction between self-disclosure and gender was not statistically significant. Therefore, Hypothesis 2 was not supported.

V. DISCUSSION

The present study examined the relationship between self-disclosure to AI chatbots and intimacy in close

human relationships among young adults. It also investigated whether gender influenced this relationship.

The first hypothesis proposed a significant relationship between self-disclosure to AI chatbots and interpersonal intimacy. However, the findings showed a weak positive and non-significant correlation ($r = .13$, $p = .606$). Thus, the first hypothesis was not supported.

One possible explanation is that sharing personal information with an AI chatbot may not necessarily increase emotional closeness with family members, friends, or other important people. Human intimacy requires mutual understanding, trust, emotional support, and responsiveness. Although AI chatbots provide an opportunity to express feelings, these interactions may not create the same emotional connection as human relationships.

The pattern of AI use among participants is also important. Most participants used chatbots for academic assistance and information seeking rather than emotional support or companionship. Only 15.8% used them for personal reflection or self-expression, 10.5% for emotional support, and 5.3% for companionship. This may explain why self-disclosure to AI was not significantly associated with interpersonal intimacy.

The second hypothesis proposed that gender would moderate the relationship between self-disclosure and intimacy. However, the interaction effect was not statistically significant ($p = .082$). Therefore, the second hypothesis was also not supported.

These findings suggest that gender did not significantly change the relationship between self-disclosure to AI chatbots and interpersonal intimacy in the present sample.

The overall regression model was statistically significant, but the individual predictors and interaction effect were not. This finding should be interpreted carefully because of the small sample size. Overall, the results suggest that the relationship between AI-based communication and human intimacy may depend on the purpose and emotional depth of chatbot interactions rather than simply the frequency of use.

VI. LIMITATIONS OF THE STUDY

1. The sample size was small, consisting of only 19 participants.
2. Convenience, purposive, and snowball sampling limit the generalization of findings.
3. Most participants were students and primarily used AI for academic and information-related purposes.
4. The study relied on self-report questionnaires, which may be affected by response bias.
5. Intimacy was measured with reference to one selected close human relationship.

Suggestions for Future Research

Future researchers should include a larger and more diverse sample. Studies may compare individuals who use AI mainly for academic purposes with those who use it for emotional support and companionship.

Other factors, such as loneliness, social support, duration of AI use, and emotional dependence on AI, may also be considered.

VII. CONCLUSION

The present study examined self-disclosure to AI chatbots and intimacy in close human relationships among young adults.

The findings revealed a weak positive but statistically non-significant relationship between the two variables. Gender also did not significantly moderate this relationship. Therefore, both research hypotheses were not supported.

The findings indicate that sharing personal information with AI chatbots does not automatically lead to greater intimacy in human relationships. The majority of participants used AI mainly for academic assistance and information seeking rather than emotional support or companionship.

The study highlights the need to understand the psychological effects of growing AI use among young adults. AI chatbots may provide opportunities for communication and personal expression, but meaningful human relationships continue to involve mutual understanding, trust, and emotional connection.

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