



Between humans and machines: exploring how AI chatbots shape motivation for real relationships

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Abstract

As AI chatbots become embedded in everyday life, they are increasingly used in contexts that extend beyond functional assistance and into emotionally oriented interaction. While prior research has examined AI companionship and wellbeing, less attention has been given to how AI use is situated within the perceived effort of maintaining human relationships and how this shapes motivation toward real-life social connections. This study draws on open-ended survey responses from 55 university students in Türkiye to explore how participants describe relational effort, engage with AI chatbots, and make sense of these experiences in relation to human relationships. Using an inductive thematic approach, the analysis identifies three broad themes: (1) *perceptions of self and relational effort*, (2) *engaging with AI chatbots*, and (3) *motivation toward real-life relationships after AI use*. Findings suggest that AI chatbots are often positioned as low-demand interactional resources that reduce immediate emotional and cognitive effort without replicating the depth or reciprocity of human relationships. Participants' accounts reflect varied orientations toward AI use, shaped by differences in social confidence and situational demands. Rather than indicating a uniform shift in social motivation, these patterns point to context-dependent ways in which AI is integrated into existing relational practices. These findings offer an exploratory account of how AI use is embedded within broader emotional and relational dynamics, pointing to the need to consider AI engagement within the contexts in which social interaction is managed.

Keywords human-AI interaction · Relational effort · Social self-efficacy · Social motivation

Introduction

Strangely, AI makes me feel a bit better, but it doesn't feel like social support. It's somewhere between talking to myself and being listened to by someone.

Participant #48.

This reflection captures a central tension of the present study: Artificial Intelligence (AI) chatbots may feel emotionally responsive without offering the relational depth or reciprocity characteristic of human connection, with

implications for social motivation and emotional effort. AI chatbots have become increasingly present in everyday academic, professional, and personal contexts, where they are used for a range of functional and interactional purposes. The increasing integration of artificial intelligence into everyday life is mirrored by a growing body of interdisciplinary research that highlights its expanding relevance across diverse domains, including social interaction processes (Hajkowicz et al., 2023). These developments suggest that artificial intelligence is becoming embedded in everyday interactional contexts, prompting closer examination of how individuals interpret and experience AI-mediated interaction (Sundar, 2020).

Alongside this expansion, AI chatbots are increasingly used in contexts that overlap with functions typically associated with human interaction. Recent work has examined AI as companions and sources of emotional support, raising questions about how such systems intersect with human social motivation and relational life (Guingrich & Graziano, 2025). Although certain studies on mental health chatbots

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and conversational AI systems emphasize potential advantages, including emotional relief and enhanced accessibility to support (Alanezi, 2024; Fitzpatrick et al., 2017), other research warns of the risks associated with misuse or the erosion of human relationships (Huang et al., 2025; Xie et al., 2023; Zhang et al., 2024).

Despite growing empirical attention to AI companionship, less attention has been given to how engagement with AI chatbots is situated within the perceived effort of maintaining human relationships, and how individuals make sense of this in relation to their orientation toward real-life social connection. The present study addresses this gap by examining how participants experience relational effort, defined as the perceived emotional and cognitive investment required to initiate and maintain interpersonal interactions, including the management of feelings, relational expectations, perceived costs, and self-regulatory demands in social ties (Cook & Rice, 2003; Duncombe & Marsden, 1993; Karremans et al., 2015). This concept is used in the study to interpret how participants described their engagement with AI chatbots and their motivation toward human relationships. Specifically, the study addresses the following research questions:

1. How do participants describe their experiences of social self-efficacy and relational effort in the context of maintaining human relationships amid increasing interaction with AI?
2. What motivates participants' emotional and functional engagement with AI chatbots?
3. How do participants make sense of their engagement with AI chatbots in relation to their motivation and attitudes toward real human relationships?

The study focuses on a specific subgroup of university students in Türkiye, and the analysis is limited to how participants within this context describe and interpret their experiences. The findings should therefore be understood as context-specific rather than generalizable across populations.

AI Chatbots as emerging social partners

AI chatbots have evolved into relational actors that participate in people's emotional and social worlds. Systems driven by large language models (LLMs) can adapt to user preferences and generate personalized responses that resemble human interaction (Cao et al., 2025; Chen et al., 2024). These qualities allow users to form relationships with AI that resemble parasocial bonds, involving one-sided emotional investment similar to attachments formed with media figures. Recent studies show that people can develop

meaningful emotional ties to chatbots, sometimes experiencing a sense of intimacy or romance (Ge, 2024; Xie et al., 2023).

Users frequently describe AI companions as supportive and empathetic, which contributes to feelings of being understood and emotionally validated (Kouros & Papa, 2024). Studies of AI well-being personas show similar patterns: emotional attunement and perceived warmth increase user satisfaction, while technical failures reduce emotional trust (Heissler et al., 2024). Emotional trust refers to users' perception of AI systems as emotionally supportive and non-judgmental interaction partners that facilitate self-disclosure, while remaining dependent on perceived responsiveness and accuracy (Heissler et al., 2024). However, this emotional responsiveness has clear limits. Although supportive chatbots can sometimes elicit stronger feelings of social connection than minimally supportive humans, users report discomfort when chatbots appear too human in identity or role. This reaction reflects an uncanny valley effect, in which near-human behavior triggers unease rather than closeness, highlighting that emotional support from AI is effective only when clear boundaries between human and artificial agents are maintained (Folk et al., 2024).

AI's emotional presence is further strengthened by its ability to respond to users' emotional expressions. Research on ChatGPT shows that the system can acknowledge distress and express compassion, creating an interpersonal atmosphere that resembles human responsiveness (Liu, 2024). AI companions can also absorb negative emotions and generate consistently affirming feedback, which strengthens emotional attachment (Hu et al., 2025). These patterns align with broader relational partner role, which reflects how people form connection and adapt socially in interactions with artificial agents (Boyd & Markowitz, 2026).

Although these interactions may feel supportive, they also create new risks. In situations of heightened emotional intensity, AI systems may respond in ways that fail to interrupt problematic trajectories, reflecting the constraints of automated interaction rather than deliberate guidance or interpersonal judgment (Zhang et al., 2024). While AI-based companion interactions may provide short-term relief by reducing loneliness and offering emotional reassurance, this relief may delay investment in human relationships and, in some cases, weaken social motivation or foster emotional over-reliance (Malfacini, 2025). When AI is used for emotional processing or reassurance, this interaction style may reinforce avoidance or maladaptive thinking, as the system lacks the relational accountability and corrective capacity that characterize human interaction (Smith et al., 2025). Empirical evidence further suggests that AI interactions alter disclosure dynamics: although users report less fear of judgment when disclosing to chatbots, disclosures

are objectively less intimate than those made to humans, with perceived anonymity predicting greater self-disclosure (Croes et al., 2024). Despite these limitations, these studies indicate that AI is increasingly treated as an emotionally present and responsive partner, shaping people's experience of social life.

However, this perceived responsiveness does not necessarily imply contextual understanding. In addition to the potential drawbacks discussed above, an important limitation of AI-mediated interaction concerns contextual misfit. AI chatbots generate responses based on patterns in data rather than a grounded understanding of users' specific emotional and situational contexts, which may lead to responses that are misaligned with users' needs (Smith et al., 2025; Zhang et al., 2024). As a result, responses may appear appropriate at a surface level while failing to capture contextual nuance. These limitations are consistent with reports that users may feel misunderstood or perceive responses as lacking contextual sensitivity, particularly when interactions require emotional nuance or personalized understanding.

Relational effort, social exchange, and the turn toward AI

Social Exchange Theory (SET) provides a useful framework for understanding how individuals navigate relational effort by conceptualizing social interaction as shaped by perceived costs, rewards, and expectations of reciprocity (Cook & Rice, 2003). Within this perspective, individuals are understood to allocate time and emotional resources in ways that maximize relational rewards and minimize strain. SET has been systematically reviewed across fields, highlighting the relevance of psychological and interpersonal transactions within exchange processes (Ahmad et al., 2023). Relationships that involve high emotional effort with uncertain or delayed rewards are, therefore, more likely to be regulated or temporarily avoided, particularly under conditions of stress or limited personal resources (Kelley & Thibaut, 1978; Rusbult, 1983).

SET has increasingly been extended to AI-mediated interaction, particularly in studies that examine how users evaluate the benefits, costs, and reciprocity of communication with artificial agents. In AI companion research, Baylor et al. (2025) found that users described social-oriented communication with AI companions through both benefits and costs, while also showing that reciprocity operates differently when the interaction partner is non-human. This is important because AI companions may provide emotional availability and responsiveness without requiring the same mutual obligation expected in human relationships. Related work on social companion

AI suggests that attachment to AI is associated with perceived emotional value and the social functions users attribute to these systems (Hu et al., 2025). In chatbot communication, responsiveness and conversational tone have similarly been associated with user satisfaction and engagement, showing that users evaluate AI interaction through perceived communicative value even when the exchange is not fully reciprocal (Jiang et al., 2022).

Relational effort can be conceptualized as a component of relational cost within SET; however, relational life is not governed solely by calculative exchange processes. Individuals frequently sustain emotionally demanding relationships because of commitment and shared meaning, even when immediate rewards are uneven or uncertain (Clark & Mills, 1979; Rusbult et al., 1998). Sociological accounts of emotion work emphasize that maintaining relationships involves ongoing regulation of feelings and negotiation of interactional expectations, especially in emotionally significant ties (Duncombe & Marsden, 1993). Psychological research further demonstrates that sustaining relationships draws on executive control and self-regulatory resources, particularly under conditions of competing demands or emotional fatigue (Karremans et al., 2015). When such resources are depleted, individuals may withdraw from high-effort social interactions. Evidence from neuroscience and social psychology indicates that prolonged social demands are associated with reduced cognitive functioning and emotional wellbeing, which may heighten vulnerability to interpersonal strain (Bzdok & Dunbar, 2022). This helps explain why individuals may seek forms of support that reduce interpersonal demand during periods of relational strain.

In this context, AI systems facilitate emotional and cognitive offloading by allowing individuals to express frustration and manage stress through conversation. Conversational agents have been shown to reduce depressive and anxiety symptoms (Fitzpatrick et al., 2017) and to lower social pressure during interaction by providing non-judgmental, text-based responses (Hoermann et al., 2017; Liu & Sundar, 2018). However, reliance on AI for emotional support also introduces important limitations. While AI may provide temporary relief from relational strain, it cannot replicate the mutual responsiveness and shared vulnerability that characterize human relationships (Smith et al., 2025). In emotionally charged situations, AI may unintentionally sustain maladaptive thought patterns when engagement is maintained without challenge (Zhang et al., 2024). Over time, repeated reliance on low-effort emotional support may shape coping patterns in ways that reduce opportunities for interpersonal regulation and relational learning.

Social self-efficacy and choosing between humans and AI

Self-efficacy refers to individuals' beliefs about their capacity to organize and execute actions required to manage prospective situations, shaping motivation, persistence, avoidance, and coping under conditions of challenge or stress (Bandura, 1997). Extensive research shows that self-efficacy influences whether individuals approach or withdraw from demanding tasks, particularly when perceived costs or risks are high (Bandura, 1997; Maddux & Gosselin, 2012; Schunk & DiBenedetto, 2020). Social self-efficacy refers to an individual's confidence in their ability to initiate and maintain social interactions (Gu et al., 2014). Empirical work links higher social self-efficacy to greater social engagement and better interpersonal adjustment, whereas lower or unstable social self-efficacy is associated with social avoidance and heightened sensitivity to evaluation (Gu et al., 2014; Smith & Betz, 2000). These differences are especially salient in situations involving emotional disclosure or relational uncertainty, where perceived social risk is elevated.

In this context, research suggests that individuals are more willing to disclose intimate information more readily to AI systems than to humans, largely due to reduced concerns about judgment or negative social consequences (Croes et al., 2024; Lucas et al., 2014). Related work on generative AI chatbot use suggests that fear of negative evaluation and social anxiety are relevant to problematic patterns of AI chatbot engagement, indicating that AI may become especially appealing when human interaction feels socially risky (Huang et al., 2025). At the same time, discomfort arises when AI becomes too human-like, indicating that users maintain boundaries around acceptable forms of artificial sociality rather than seeking full relational substitution (Folk et al., 2024). These findings propose that social self-efficacy shapes whether AI is used as a supplement to human interaction or as a temporary alternative when interpersonal engagement feels demanding.

Emotional experience with ai and its influence on social motivation

Beyond these differences in who turns to AI and under what conditions, research has increasingly examined the emotional consequences of sustained engagement with AI chatbots. AI chatbots increasingly function as emotional support systems within everyday life. Studies show that conversational agents support daily stress management and emotional articulation (Alanezi, 2024; Hu et al., 2025). These emotional functions position AI as an accessible resource

for managing distress and organizing internal experience, especially when human support is unavailable or feels demanding.

At the same time, while AI relationships may feel comforting, they create new relational dynamics that carry potential risks. Heavy reliance on AI companionship has been associated with emotional dependence and reduced wellbeing, particularly when AI substitutes for human connection rather than complementing it (O'Driscoll et al., 2025; Xie et al., 2023). Users with higher vulnerability appear especially at risk of problematic reliance, especially when AI becomes a primary emotional outlet rather than a supplementary resource (Guingrich & Graziano, 2025). These findings suggest that while AI can alleviate emotional strain, its use may also reduce engagement with the interpersonal processes that sustain human relationships.

These mixed findings indicate that AI's influence on social motivation is neither uniformly beneficial nor uniformly harmful. Building on this literature, the present study examines how emotional and mental effort in human relationships interacts with engagement with AI chatbots to shape motivation toward real-life social connection. By focusing on participants' narratives rather than predefined outcomes, this study clarifies the relational niches AI occupies and the conditions under which it reshapes human social motivation.

Contribution of the study

This study offers an exploratory account of how engagement with AI chatbots may be understood in relation to the emotional and relational demands of everyday social life. Existing research has applied SET to digital and mediated interactions, particularly in understanding how individuals evaluate interactional costs, benefits, and expectations in technology use. However, its application to AI chatbot engagement in everyday interpersonal contexts remains limited, especially in relation to effort and motivation toward human relationships.

First, it draws attention to relational effort as a way of describing how participants navigate the perceived demands of human interaction, and how these experiences relate to their engagement with AI. Second, it considers how AI chatbots are described in terms of low-demand interaction, characterized by immediacy and reduced social obligation. Third, it examines how participants make sense of the relationship between AI use and their motivation toward human interaction, which appears context-dependent rather than uniform. These observations provide a preliminary and descriptive account of how AI chatbot use may be situated within existing relational practices.

Methodology

Research design

This study employed a qualitative research design using an online open-ended survey to explore how participants describe their experiences of social interaction, relational effort, and engagement with AI chatbots. This approach was selected to capture a range of subjective accounts across participants while allowing for anonymity and accessibility in data collection. Unlike in-depth qualitative interviews, this design did not involve probing or follow-up questioning. As a result, the data reflect participants' self-directed written responses rather than co-constructed or interactionally developed accounts. The analysis therefore focuses on how participants described their experiences in their own words, as presented in the written responses.

Participants

A total of 60 responses were collected between November and December 2025, over approximately one month.

Table 1 Participant demographics

Characteristics	<i>n</i> = 55	%
Gender	45	81.8%
Female	10	18.2%
Male		
Age (years)	55	100%
18–29		
Student Status	55	100%
Student		
Marital Status	55	100%
Single		
Socioeconomic Status (SES)	34	61.8%
Lower	15	27.3%
Lower-middle	4	7.3%
Middle	1	1.8%
Upper-middle	1	1.8%
High		
Highest Education Level	32	58.2%
High school or below	3	5.5%
Diploma	19	34.5%
Bachelor's degree	1	1.8%
Postgraduate degree		
Nationality	42	76.4%
Turkish	7	12.7%
Malaysian	2	3.6%
Lebanese	1	1.8%
Uzbekistani	1	1.8%
Syrian	1	1.8%
Czech	1	1.8%
Pakistani		
Place of Residence	53	96.4%
Urban (Istanbul)	2	3.6%
Urban (Other cities)		
Disability Status	55	100%
No disability		

Five respondents were excluded from the final analytic sample. Two respondents were excluded because they did not meet the inclusion criterion of having used an AI chatbot at least once in their lifetime, while three respondents were excluded because they were aged 30–39 years. The decision to limit the analytic sample to participants aged 18–29 was made to preserve the coherence of the sample as a young adult student group. Since only three participants were aged 30–39, retaining them would have introduced age-related heterogeneity without allowing meaningful age-based comparison.

The final analytic sample consisted of 55 participants, all of whom were students aged 18–29. Participants were included if they had prior experience using AI chatbots, while frequency of use was treated as contextual information rather than as a basis for subgroup comparison. This decision was consistent with the aim of the study, which was not to determine the everyday impact of AI chatbot use according to level of exposure, but to explore how participants made sense of AI chatbot use in relation to their motivation toward human relationships. Within the scope of the research questions, infrequent or limited use was therefore analytically relevant, as such accounts reflected participants' reservations toward AI use, as well as their continued preference for human interaction. Across the dataset, thematic patterns did not divide clearly according to frequency of use, as both frequent and less frequent users continued to distinguish AI chatbot interaction from human relationships, particularly in terms of emotional depth and relational meaning.

The sample consisted of 45 females and 10 males, all of whom reported being single at the time of data collection. Most participants were Turkish nationals ($n = 43$), with the remainder comprising international students ($n = 12$) who had lived in Türkiye for periods ranging from one to ten years. All participants resided in urban areas, with most based in Istanbul ($n = 53$). In terms of socioeconomic status, the sample was predominantly drawn from lower ($n = 34$) and lower-middle ($n = 15$) socioeconomic backgrounds. A smaller number identified as middle socioeconomic status ($n = 4$), while only a few reported upper-middle ($n = 1$) or high socioeconomic status ($n = 1$). All participants reported no disabilities.

The sample therefore reflects a relatively specific subgroup of young adult urban students with varying levels of exposure to AI chatbots. This context shapes the scope within which the findings should be interpreted, and the results are not intended to be generalized beyond this population. A detailed demographic summary is presented in Table 1.

Data collection

Data were collected using an anonymous, open-ended questionnaire administered via Google Forms. The survey link was distributed via WhatsApp by the researchers through their personal and academic networks, including university student groups and peer contacts, resulting in a form of snowball sampling. The questionnaire consisted of 25 items, including both demographic questions and open-ended questions. The average completion time was 20 min. The questionnaire was designed to elicit participants' reflections on their reported experiences of social connection, emotional and mental effort in human relationships, and interactions with AI chatbots.

All questions were reviewed by subject experts prior to distribution to ensure clarity, neutrality, and the avoidance of leading phrasing. The questionnaire was made available in both Turkish and English to accommodate participants' linguistic preferences. To maintain data integrity, participants were asked to confirm at the end of the form that they had submitted only one response.

Data analysis

Data were analyzed using inductive thematic analysis, following the framework proposed by Braun and Clarke (2006, 2019). The analysis began with a familiarization phase, during which responses were reviewed in full to gain an overall sense of participants' experiences. As the questionnaire was administered in both Turkish and English, responses submitted in Turkish were translated into English prior to analysis by two researchers fluent in both languages, one of whom is an author. The translated responses were reviewed collaboratively to preserve meaning and tone.

Coding was then conducted manually on the English dataset by three researchers through close, line-by-line reading of the responses. The coding process was organized using a shared spreadsheet (Google Sheets), which included a developing codebook and space for analytic notes alongside each response. Initial codes were generated inductively and remained closely grounded in participants' wording. The researchers worked collaboratively throughout the coding process, with regular discussion to review emerging codes and compare interpretations.

As coding progressed, related codes were grouped and iteratively developed into broader themes. This process involved repeated movement between individual responses and the developing thematic structure to ensure that themes reflected patterns across the dataset rather than isolated instances. In the later stages of analysis, thematic sufficiency was indicated by repeated patterns across participants' responses, with later responses elaborating existing

codes and themes rather than introducing substantially new interpretive categories. This claim is limited to the scope of the present dataset and does not imply that the topic has been exhaustively explored.

Researcher reflexivity

The lead author's interest in this topic was shaped by personal observations within her own family context. She observed that some family members appeared to prefer asking AI chatbots for information or guidance rather than approaching other family members who had relevant knowledge or expertise. This raised questions about whether AI chatbot use may affect motivation for direct human engagement. At the same time, the lead author recognized that this personal concern could create an interpretive tendency to view AI use as a sign of withdrawal from human relationships. During questionnaire design and analysis, care was therefore taken not to frame AI engagement as inherently harmful or as a direct replacement for human connection.

The researchers approached AI chatbots from a socio-psychological perspective, acknowledging both their potential to provide emotional support and their limitations in replicating human interaction. Prior to data collection, the researchers recognized that participants may perceive chatbots as non-judgmental and accessible partners, which could shape emotional engagement and self-disclosure. These assumptions were considered during the development of the open-ended questionnaire, with an effort to avoid leading participants toward either positive or negative evaluations.

During data analysis, reflexive discussions were conducted to critically examine how the researchers' prior perspectives on AI-mediated interaction and emotional support might influence coding and interpretation. Given that the study addressed topics related to social confidence, emotional disclosure, and engagement with AI, the analysis involved careful comparison across responses and attention to variation in how participants articulated their experiences, so that interpretations remained grounded in participants' accounts rather than generalized across contexts. The development of themes was informed by the research questions and the structure of the open-ended responses, while remaining attentive to variation in how participants articulated their experiences. Themes were constructed through iterative coding and comparison across responses, rather than assumed to arise independently of the analytic process.

Ethical considerations

Ethical approval for the study was granted by the Institutional Review Board of the authors' affiliated institution, and participation was based on informed consent embedded

within the online form. Some student participants were offered bonus participation points for completing the survey. The survey link was distributed by a teaching assistant, who also handled the collection of student numbers solely for the purpose of awarding these points, while course instructors were not involved in recruitment and did not have access to the survey responses or identifying information at any stage. Student numbers were temporarily collected alongside survey responses and were removed from the dataset after the allocation of participation points, prior to analysis. The dataset used for analysis did not contain any identifying information, and responses were treated as anonymous. Students were informed that participation was voluntary and that their decision to participate or not would not affect their course standing beyond the optional bonus.

Results

Participants reported varied histories of AI chatbot use, with most indicating they first began using such tools within the past 3 to 4 years. This timing broadly aligns with the increased public availability and visibility of generative AI chatbots, particularly their integration into academic and everyday digital environments (Dwivedi et al., 2023; OpenAI, 2023). Initial engagement with AI chatbots was most often described in terms of academic needs, such as assistance with studying, learning new languages, or completing coursework. Others reported being introduced to AI chatbots through peer recommendations, while some described first using these tools out of curiosity.

In terms of current engagement, participants varied in both the frequency and duration of their AI chatbot use. A majority reported very frequent or frequent use, with 30 participants using AI chatbots every day and 15 using them a few times a week. Others reported less frequent engagement, including once a week ($n=2$), a few times a month ($n=2$), or very infrequent use ($n=6$). On days when they used AI chatbots, most participants reported limited to moderate use, with nearly half using them for one hour or less ($n=28$) and a similar proportion using them for one to three hours ($n=24$). Extended daily use exceeding five hours was uncommon ($n=3$). Frequent users tended to describe AI chatbots as more integrated into academic or emotional regulation routines, but differences in frequency did not produce clearly separate thematic patterns. Across levels of use, participants continued to distinguish AI interaction from human relationships, particularly in terms of reciprocal and emotionally grounded connection.

Following the descriptive overview, three main themes were identified. The first theme, *Perceptions of Self and Relational Effort*, captures how participants described their sense of social self-efficacy, the emotional and mental

effort involved in maintaining human relationships, and the rewards associated with these efforts. The second theme, *Engaging with AI Chatbots*, focuses on participants' reasons for using AI, their reservations about AI use, and their broader concerns regarding its implications. The third theme, *Motivation Toward Real Life Relationships After AI Use*, examines how participants understood their engagement with AI chatbots in relation to their interest in and prioritization of human relationships. An overview of these themes and their subthemes is presented in Table 2.

The thematic structure was consistent across male and female participants. Although some responses differed in length and level of detail, these differences were not systematically analyzed as gender-based patterns. Therefore, gender is not interpreted as shaping the nature of the themes in the present study.

Theme 1: perceptions of self and relational effort

Theme 1.1: perceptions of social self-efficacy

In this study, social self-efficacy is used as a conceptual lens rather than as a formally measured construct. Accordingly, this theme focuses on participants' perceived capability in initiating and maintaining social interaction across different contexts. These self-descriptions are analytically relevant because they provide context for participants' later reflections on relational effort and AI chatbot use. Participants' accounts reflected varied perceptions of social confidence and adaptability. Some reported ease in initiating conversations and navigating different social contexts. These descriptions emphasized competence and flexibility rather than constant effort. One participant (#52) described as socially proactive and able to maintain conversation with new people:

"I'm generally a social and friendly person, so I'm good at starting conversations. With new people, I keep the conversation going by asking lots of questions."

Others described a more selective pattern of engagement. Rather than indicating broad social discomfort, these accounts combined expressions of confidence with reports of fatigue, which participants linked to how much interaction they chose to sustain. Participant (#1) explained that while she typically initiated conversations, prolonged engagement felt draining:

"I'm confident in my communication skills, but I don't enjoy chatting with everyone. I usually start conversations when I enter a place, but I get tired quickly."

Several participants described fluctuating social self-efficacy. They reported that their perceived social capability

Table 2 Themes and subthemes identified in the study

Theme	Subtheme	Description
Theme 1: Perceptions of Self and Relational Effort	1.1 Perceptions of Social Self-Efficacy	Variations in perceived social capability were reflected in differences in comfort, confidence, and difficulty in initiating and sustaining social interaction.
	1.2 Emotional and Mental Relational Effort	Human relationships involved sustained cognitive and emotional demands, including self-monitoring, emotional regulation, and responsiveness to social expectations.
	1.3 Enduring Value of Human Connection	Relational effort coexisted with strong valuation of emotional depth, mutual understanding, and shared presence in human relationships.
Theme 2: Engaging with AI Chatbots	2.1 Reasons for Using AI Chatbots	AI chatbots were used for practical support, emotional safety, and non-judgmental expression, particularly in low-stakes or academic contexts.
	2.2 Reasons Against Using AI Chatbots	Concerns centered on emotional incompleteness, lack of genuine empathy, privacy risks, and discomfort with relying on AI for relational matters.
	2.3 Ambivalent Evaluations of AI Use	AI engagement was evaluated as simultaneously supportive and problematic, offering emotional relief while raising concerns about dependency and reduced effort.
Theme 3: Motivation Toward Real-Life Relationships After AI Use	3.1 Stability in Motivation Toward Human Relationships	Motivation toward human relationships remained largely unchanged, with AI engagement positioned as complementary rather than substitutive.
	3.2 Reorientation of Social Motivation	Social motivation shifted in timing or expression, including temporary deferral, reduced initiation, or renewed desire for human interaction.
	3.3 Redistribution of Support Functions	Practical or low-stakes support functions were allocated to AI, while emotional and relational needs remained associated with human relationships.

varied across situations or over time. Context and prior experiences were often cited as shaping how confident they felt in initiating or sustaining interaction. Participant (#43) described listening more than speaking in many situations but feeling capable of sustaining conversation with familiar others:

"I'm usually passive in conversations and more of a listener. But with close friends and family, I can easily find topics and keep the conversation going."

Other participants described lower confidence in initiating conversations, including anxiety around initiating conversations and discomfort in everyday encounters. These perceptions were described in terms of reduced confidence in managing interactional demands, which participants associated with hesitation or withdrawal from social engagement. Participant (#9) described feeling reluctant to reach out due to concern about being judged:

"I don't feel very confident starting or continuing conversations with others. I often feel very shy or embarrassed to do so, as if they'd judge me for even wanting to reach out."

Overall, participants' perceived social confidence appeared contextual and dynamic rather than fixed. Variations in how participants described their social capability were reflected in how they regulated their engagement with others, including the emotional and mental effort they reported investing in interaction. Importantly, participants who presented themselves as socially confident did not always report greater willingness to sustain interaction when relational demands felt high. Some described selectively limiting interaction despite feeling capable of initiating or maintaining conversation. In this way, perceived social confidence provided context for how participants navigated relational effort, including the emotional and mental labor examined in the following section.

Theme 1.2: emotional and mental relational effort

Participants described the emotional and mental effort involved in maintaining human relationships. Relationships were not framed as undesirable, but as requiring sustained emotional availability and ongoing self-monitoring. These perceived demands appeared in ways that relate to how participants evaluated their capacity for social engagement, and provided context for their later accounts of AI chatbot use.

Participants commonly highlighted the cognitive effort involved in social interaction. This included choosing words carefully, masking negative emotions, monitoring how one is perceived, and managing fear of being misunderstood or judged. Such mental demands contributed to the perception of relationships as effortful even when they were meaningful. One participant (#2), who described herself as socially capable and appreciative of human gestures, explained how constant internal questioning made relational maintenance mentally exhausting:

"I find it mentally exhausting because maintaining relationships requires constant planning. I keep asking myself questions like: When should I message

them? What should I say? Maybe they should be the one to message me first? How many times are we supposed to meet in a year? These questions are always on my mind."

Additionally, participants.

also described relational effort as an ongoing attentiveness to others beyond the moment of direct interaction. Rather than referring only to conversation itself, this effort involved keeping the relationship active, being aware of the other person, and maintaining a sense of continuity. Participant #4, who described himself as hesitant in less familiar social encounters, explained:

"What feels tiring to me is the constant need to keep track of the relationship; in other words, constantly considering the other person and trying to stay informed about them."

In describing these combined emotional and mental demands, some participants reported regulating their level of social engagement, such as limiting contact or withdrawing from situations they found uncomfortable. One participant (#34), who otherwise described herself as socially confident, noted that exhaustion emerged particularly when mutual respect felt compromised:

"My desire to socialize usually doesn't decrease for no reason. But when I feel uncomfortable in an environment, I try to withdraw and avoid seeing anyone, and I prefer not to be visible."

Participants' descriptions indicate that relational effort involved balancing connection with emotional sustainability, shaping how and when engagement felt possible. This context helps interpret why interactions perceived as more controllable or less emotionally demanding later became salient in experiences of AI chatbot use.

Theme 1.3: enduring value of human connection

Despite the emotional and mental effort described in maintaining relationships, participants consistently emphasized the enduring value of human connection. Relationships were not portrayed as burdens to be avoided, but as meaningful sources of emotional support and shared experience. This tension between effort and value was central to how participants made sense of their social lives despite external non-human support like AI.

Participants frequently highlighted the importance of being understood and emotionally validated by others. Feeling listened to, accepted, or genuinely cared for was

described as something that could not be fully replicated through other means. These experiences were often framed as reminders of why human relationships remained important despite the effort involved. Participant #26 reflected on how small gestures of concern from others could restore motivation and a sense of connection during demanding academic periods:

"The most satisfying part of relationships for me is feeling understood and supported. As a student, this matters especially during academic stress. During exam weeks, even a friend saying, 'How are your studies going? If you want, we can study together,' reminds me that I'm not alone and helps restore my motivation."

In addition to emotional validation, participants also highlighted the value of shared presence and relational depth. These qualities included mutual trust, shared values, and the experience of growing together over time. This perspective was echoed by Participant #33, who described the importance of recognition and reciprocal contribution within close relationships:

"It's rewarding when the other person mentions a positive quality in me that I had not noticed myself, and when we feel that we are contributing to each other's growth and bringing something new into each other's lives."

These narratives illustrate that relational effort did not diminish the perceived importance of human connection. Instead, participants viewed effort and reward as coexisting aspects of relationships. This enduring valuation of human connection provides an important context for understanding why AI chatbots were later described as useful in limited or functional ways, rather than as substitutes for meaningful interpersonal relationships.

Theme 2: engaging with AI chatbots

Theme 2.1: reasons for using AI chatbots

AI use was most commonly framed as pragmatic and purpose driven, rather than relational. Participants emphasized utility, efficiency, and accessibility, positioning AI chatbots as tools that supported specific needs within their daily lives. Many participants described using AI chatbots for academic or functional purposes, such as clarifying concepts, generating ideas, or assisting with tasks. For these participants who were particularly students, AI chatbots were described as readily available

resources that could be accessed without scheduling or external dependence, therefore, valued for its speed and perceived reliability. Participant #50, who described herself as comfortable with familiar others but hesitant when initiating interaction, explained that AI offered efficient academic support without any interpersonal effort:

"I'm actively using AI chatbots because I wanted practical support while preparing for classes, doing homework, and creating presentations or content outlines. Getting fast feedback was also very helpful."

In addition to functional support, participants highlighted the non-judgmental and emotionally neutral nature of AI chatbots as a reason for use. Several described feeling able to ask questions or express uncertainty without fear of negative evaluation. This absence of social pressure was contrasted with human interaction, particularly in situations where participants felt hesitant, uncertain, or concerned about being judged. Participant #27, who described herself as selective in social engagement and easily fatigued by miscommunication, noted that AI felt like a space where disclosure did not carry interpersonal risk:

"I feel extremely understood, and since it can't judge me, I can share things I can't even tell my therapist."

A few participants also pointed to economic considerations, noting that AI chatbots were perceived as more affordable or accessible than professional services or external assistance. Alongside this, participants described valuing the sense of control and privacy AI offered, including the ability to choose when to engage, what to disclose, and when to disengage. Participant #23, who identified as socially confident but prone to interpersonal tension, explained that AI interaction felt easier precisely because it removed the possibility of emotional friction:

"AI does not make unnecessary comments, and I never feel hurt by it. Whatever it says, it's not a human anyway. I can talk when I want, and if I don't, there's no distance or tension. I can always come back later and ask something again. There's a sense of ease in that."

Participants' reasons for using AI chatbots reflect a preference for interactions that were efficient, low-pressure, and under personal control. These motivations did not indicate a desire to replace human relationships, but rather to manage specific needs in ways that reduced interpersonal effort, judgment, or obligation.

Theme 2.2: reasons against using AI chatbots

While participants acknowledged the practical benefits of AI, they also articulated reservations that were reflected in how and when they described choosing to engage with these tools. These reservations often concerned perceived emotional, relational, or qualitative limitations rather than outright rejection of AI.

A common reason for reluctance was the perception that AI chatbots lack genuine emotional understanding. Participants described AI as unable to truly empathize, respond with emotional depth, or grasp the nuance of personal situations. In this context, some participants expressed discomfort with sharing emotionally sensitive matters with AI, particularly when they viewed such issues as requiring human understanding. Participant #40, who self-described as socially confident, emphasized that emotional sharing remained firmly located within human relationships:

"I don't think AI can ever replace a human. Talking to a real person feels completely different. AI cannot truly understand me, it only pretends it does. A real person can feel sad or happy for me, and of course, can hug me."

Participants also raised concerns about the quality and appropriateness of AI responses. Some described AI as too mechanical, overly generic, or insufficiently sensitive to context, which reduced trust in its ability to provide meaningful or nuanced guidance. These limitations were especially salient when participants compared AI responses to advice or feedback received from trusted human relationships. Participant #54, who preferred maintaining a small circle of close relationships, noted that while AI could assist with factual or technical questions, it fell short in areas requiring creativity or deeper understanding:

"While AI chatbots are helpful with analyzing data and brainstorming ideas, they fall flat in making genuine creative works and understanding contextual nuances."

In addition, several participants expressed unease or discomfort with the idea of relying on AI for matters beyond functional tasks. This included feeling uncertain about the safety of sharing personal information, questioning the reliability of AI guidance, or simply feeling that AI interaction did not align with their personal values or preferences. Participant #42, who described low

interpersonal confidence but still prioritized human connection, explained that concerns about security limited what she was willing to share with AI:

"I feel uneasy, like the information I share could somehow be used against me later. Because of that, I try not to share personal details."

Participants' reservations indicate that reluctance toward AI chatbot use stemmed less from resistance to technology itself than from clearly perceived boundaries around emotional depth, trust, and relational meaning. AI was viewed as acceptable and even helpful within specific limits, but as inappropriate for contexts that participants associated with genuine understanding or interpersonal care.

Theme 2.3: ambivalent evaluations of AI use

In this subtheme, participants reflected on their evaluations of AI chatbot use, offering judgments about its perceived benefits, limitations, and broader implications. Rather than focusing solely on why they used AI, participants reflected on how their use of AI related to their wellbeing and relationships over time, often expressing ambivalent assessments rather than clear endorsement or rejection. Participants articulated mixed positions in which perceived benefits coexisted with recognized risks.

Several participants evaluated AI chatbot use in relation to psychological wellbeing. Some described AI as providing reassurance or temporary comfort, particularly during moments of stress or uncertainty. At the same time, participants expressed concern that frequent or habitual reliance on AI could have unintended consequences, such as reduced mental engagement or weakened emotional resilience. One participant (#7), who reported moderate social confidence and daily AI use for academic purposes, reflected on this perceived trade-off between convenience and cognitive effort:

"Even though I use AI a lot for studying, I think it makes people lazy. For example, I ask it to summarize things instead of reading them myself. A few years ago, we had to read everything, and I think that effort kept our minds more active."

Participants also evaluated the relational quality of AI interactions. AI chatbots were often described as non-judgmental and comforting, yet simultaneously experienced as lacking emotional depth and a sense of human presence. These descriptions reflected bounded anthropomorphic perceptions, in which AI was experienced as socially responsive without being regarded as relationally

equivalent to a human other. These interactions were often described as providing momentary relief, but not sustained emotional satisfaction. Participant #22, who was described as having selective social comfort and strongly valuing relationships despite daily AI use, articulated this tension clearly:

"AI focuses completely on me and what I say. I also feel safe because it won't judge me or share my secrets. But AI has a certain pattern, and the replies start to feel the same. Talking with thoughtful people feels deeper and more natural."

Beyond individual experience, some participants extended their evaluations to broader ethical and societal considerations, including concerns about data privacy and the long-term effects of widespread AI use on social interaction and emotional development. Although these concerns were not always tied to specific experiences, they were reflected in how participants described appropriate uses of AI and the limits they associated with it. Participant #32, who described limited daily AI use alongside high confidence in managing relationships, framed these concerns in terms of self-regulation and habit formation:

"Overall, I think that if we don't learn to control the things that constantly demand our time and attention, we end up being controlled by them. So even though AI can lead to negative outcomes, I want to overcome this by improving my habits and breaking the barriers that affect my focus."

Participants' evaluations of AI chatbot use were characterized by deliberate ambivalence. AI was not viewed as inherently beneficial or harmful, but as a tool capable of supporting wellbeing in certain contexts and the boundaries participants established around its use. These reflections capture the complexity of participants' evaluations of AI chatbot use, in which perceived benefits and drawbacks were considered together rather than resolved into clear judgments.

Theme 3: motivation toward real-life relationships after AI use

Theme 3.1: stability in motivation toward human relationships

Many participants described their motivation toward real life relationships as remaining largely unchanged following their use of AI chatbots. Engagement with AI was not

framed as diminishing the desire for human connection, but as something that coexisted with established relational priorities.

Several participants explicitly stated that using AI chatbots did not reduce their interest in maintaining relationships with others. Human interaction continued to be described as preferable and meaningful, particularly for emotional connection and companionship. In these reports, AI was not viewed as a substitute for human relationships, but as a separate resource serving a different purpose. For instance, Participant #41, who is socially confident and actively expanding her social circle while using AI only occasionally, reflected that her motivation to connect with others had remained intact:

"I don't think AI has changed my communication with people. I've never used AI to fill an emotional gap, so my desire to talk to people has continued and even grown."

Participants also drew clear distinctions between the roles of AI and humans in their lives. While AI was used for support in specific or limited contexts, participants emphasized that emotional depth, trust, and relational significance remained associated with human interaction. This distinction reinforced a stable orientation toward real life relationships, even among those who reported frequent AI use. Participant #49, who found it easier to maintain than initiate conversations and used AI intermittently, contrasted the functional nature of AI interaction with the experiential quality of human conversation.

"Talking to people feels much more natural. With AI, conversations feel task-focused, but with people I can talk just for the sake of talking, which feels more real."

Collectively, participants described stable motivation for human relationships, with AI engagement understood as existing alongside, rather than displacing, interpersonal connection. This stability reflects continuity in relational desire, rather than changes in how specific tasks or forms of support were managed.

Theme 3.2: reorientation of social motivation

Some participants described a reorientation in how their social motivation was expressed or activated following their use of AI chatbots. Rather than indicating a uniform increase or decrease in desire for relationships, these experiences reflected changes in when, how, and toward whom social motivation was directed across different contexts. Several participants described AI use as shaping the timing

and immediacy of their social engagement. For example, some reported turning to AI during moments of stress or uncertainty, which allowed them to postpone interaction with others until they felt more emotionally prepared. In these cases, motivation for human connection was not absent, but temporarily redirected or deferred. Participant #44, who otherwise valued presence and emotional availability in relationships while using AI briefly each day, described turning to AI during periods of overwhelm:

"When I withdraw from talking to people and feel emotionally overwhelmed, I sometimes share my feelings with ChatGPT for a short while."

Other participants described shifts in how they processed thoughts or emotions prior to social interaction, using AI as a space to organize ideas or reflect before engaging with people. This use was framed as supportive of later interaction, rather than as a replacement for it, suggesting a change in the pathway through which social motivation was enacted. Participant #23, who is socially confident but relieved by AI's perceived neutrality and used AI regularly, explained how this process helped her reflect before engaging with others:

"It helped me become more aware, and after trying to look at things more neutrally, I can organize my scattered thoughts on my own. It helps me see the complexity of my mind, and before getting hurt or creating distance, I make sure to reflect on the situation first."

A smaller subset of participants described a reduction in motivation to initiate human interaction, particularly following prolonged or intensive AI use. In total, 16 participants reported a decreased desire to reach out to others in certain situations, describing AI as lowering the perceived effort required to obtain quick answers or information. For approximately half of these participants, this shift did not reflect a preference for AI over people in a relational sense, but rather a tendency to rely on AI for functional or informational needs, given its speed and breadth of knowledge. Participant #12, who described low interpersonal confidence and found reaching out emotionally stressful, reflected on how access to AI made disengagement feel easier:

"When I used AI chatbots for a long time, I found that my motivation to connect with real people decreased. I thought, 'Why would I put in the effort to talk to real people when I have a chatbot at my fingertips?'"

Conversely, few participants ($n=4$) reported that interacting with AI highlighted its limitations, which in turn renewed their desire for human interaction. Some participants

described AI responses as repetitive or generic, which they associated with increased reflection on the value of human conversation and, in some cases, a renewed interest in engaging with others. Participant #55, who found relationships as meaningful and used AI infrequently, noted that this contrast increased his motivation to engage with others.

"I've noticed an increase in my desire to talk to people. The reason is that when I ask AI questions, I realize it often gives the same answers to very common questions."

Participants' experiences suggest that AI chatbot use was associated with divergent reorientations of social motivation, ranging from temporary deferral and cognitive preparation to reduced or renewed desire for human interaction. Rather than indicating a uniform shift, experiences reflected context dependent changes in how social motivation was activated and directed.

Theme 3.3: redistribution of support functions

Participants described redistributing certain support and problem-solving functions to AI chatbots, while continuing to prioritize human relationships for emotional connection. In these reports, AI was used to save time or manage moments of low social energy, rather than to replace interpersonal engagement.

Several participants emphasized the efficiency of AI for informational and practical tasks. AI was described as streamlining processes that previously required substantial time or effort, allowing participants to reserve human interaction for exchanges they considered more meaningful. Participant #3, who identified as socially confident and extraverted and reported extended daily AI use, contrasted the speed of AI with earlier, more time-consuming methods of information seeking:

"I prefer talking to people because they can give emotionally satisfying responses. But I can do things faster now, because before AI I had to search for information one by one on Google."

Other participants described using AI as one of several self-regulation strategies during periods of low motivation or emotional fatigue. In these contexts, AI was not treated as a relational substitute, but as a temporary outlet that allowed participants to process feelings or seek advice without the pressure of social interaction. Participant #15, who described lower interpersonal confidence and anxiety around initiating contact, noted that AI formed part of a broader set of coping practices:

"When I don't feel like socializing, I talk to one or two people I feel close to, write poetry or letters, sleep, try drawing, or explain my situation to AI and ask for advice without being judged."

Participants also articulated clear boundaries around the role of AI, explicitly distinguishing between assistance and emotional connection. AI was described as helpful for clarifying thoughts or organizing feelings, while emotional fulfillment and relational depth remained associated with human interaction. Participant #17, who described as socially confident but easily exhausted by the demands of relational balance, framed AI use as supportive rather than substitutive:

"AI is both a way to escape and a space where I can collect myself. It helps me clarify my feelings, but it doesn't replace real relationships. I prefer using it as an assistant, not for emotional connection."

In addition, some participants described turning to AI to avoid placing demands on others, particularly when they felt reluctant to initiate contact or burden friends with minor concerns. In these cases, AI served as an interim resource rather than a replacement for social connection. Participant #29, who identified as socially confident but constrained by the cost of professional support, explained that AI filled gaps without displacing her preference for human interaction:

"I still enjoy talking to humans and prefer it. I only use AI when I can't talk to someone else or don't want to bother anyone."

Overall, these reports indicate that AI chatbot use functioned as a redistribution of support functions, absorbing low-stakes, practical, or emotionally neutral needs while leaving relational and emotional priorities intact.

Discussion

This study examined how participants described the relationship between emotional and mental effort in human interactions and their engagement with AI chatbots, particularly in relation to their motivation toward real-life social connections. Participants did not describe AI chatbot use as a replacement for human relationships. Engagement with AI appeared to vary alongside participants' confidence in social interaction and situational demands, and did not eliminate relational effort. Participants who viewed themselves as socially confident also reported regulating or limiting interaction when relational demands were high. Rather than diminishing the value of human connection, participants'

reflections suggest that AI use was often understood as one way of managing relational effort in specific contexts. Motivation toward human relationships remained largely intact, even among participants who reported frequent AI use, highlighting the relevance of situating AI engagement within broader relational and emotional contexts. The following discussion carefully interprets the findings in relation to this specific sample and does not assume that these patterns extend beyond the contexts in which the data were generated.

From a SET perspective, participants' descriptions can be interpreted as positioning AI chatbots as low-cost, low-obligation interaction partners associated with reduced relational demands. In this study, SET is used as an interpretive framework to understand participants' allocation of effort and expectations in their interactions, particularly in contexts where relational demands were made explicit. Prior AI companion research has used SET to examine the benefits and costs of social-oriented communication with AI companions, including how such exchanges differ when the interaction partner is non-human (Bayer et al., 2025). However, the present study shifts the focus from benefits and costs within AI companion use itself to how participants compare AI interaction with the perceived demands of human relationships. Participants described AI chatbots as immediately available and minimally demanding, and some responses suggested that AI was used to offload cognitive or emotional strain without engaging in reciprocal intimacy or sustained relational commitment. In contrast, human relationships were associated with ongoing responsiveness and emotional coordination, while AI interactions were described as more controllable and easily disengaged.

Relational effort as a context for AI engagement

A key finding concerns the emotional and mental effort participants associated with sustaining human relationships. Across different perceptions of social self-efficacy, participants described relational engagement as requiring emotional regulation and ongoing self-monitoring. This is consistent with relationship maintenance research showing that sustaining close relationships can draw on executive control and self-regulatory capacities, particularly when competing goals and emotional demands are present (Karremans et al., 2015). Participants' descriptions also align with sociological accounts of "emotion work," in which relational life includes effortful management of feelings and interactional expectations (Duncombe & Marsden, 1993).

Participants consistently associated human relationships with shared presence and emotional meaning, even when such relationships required sustained emotional or mental effort. This emphasis is consistent with empirical work in

social and interpersonal psychology that identifies perceived responsiveness and mutual understanding as central to intimacy and relational connection (Reis et al., 2004). It also resonates with analyses suggesting that while current generative AI systems can reproduce certain conversational features, they do not embody key relational properties of human connection, such as mutual investment and lived reciprocity (Smith et al., 2025).

SET provides a useful lens for interpreting the selective allocation patterns described by participants because relational effort was often interpreted in ways that resemble a form of cost that becomes more salient under stress or depletion, shaping when interaction is regulated (Cook & Rice, 2003). At the same time, participants' reflections indicate that relational experiences are not reducible to exchange-based considerations alone. While effort and convenience were salient in how interactions were described, participants also emphasized emotional meaning and commitment that extend beyond calculative or efficiency-based logic. This highlights a limitation of applying SET in this context and suggests that it functions here as a partial interpretive lens rather than a comprehensive explanatory framework.

AI chatbots and low-demand relational roles

Participants' accounts consistently suggest that AI chatbots came to occupy low-demand relational roles within their social lives. These responses emphasized immediate availability and minimal emotional obligation, which participants contrasted with the interpersonal risk or sustained effort associated with human relationships. Chatbot research has shown that responsiveness and conversational tone are associated with user satisfaction and engagement in customer-service contexts (Jiang et al., 2022). The present study extends this discussion beyond satisfaction with chatbot communication by showing that the perceived value of AI interaction was also tied to reduced obligation. From a SET perspective, AI chatbot use can therefore be interpreted as a form of interaction in which perceived returns, such as immediate response and emotional relief, were available with fewer reciprocal demands than those attached to human relationships. This distinction is important because participants did not frame AI simply as a more satisfying communication tool, but as an interactional option that could be entered and exited without the same social consequences as human interaction.

Participants valued AI for its convenience and speed, especially for academic tasks and immediate questions. This is consistent with broader discussions in human-computer interaction and psychology that frame ChatGPT use as shaped by task support as well as user experience factors (Liu, 2024). The absence of judgment and reduced social pressure further

distinguished AI interaction from human engagement. Prior research similarly shows that individuals are more willing to disclose to non-human agents when concerns about social evaluation are reduced (Lucas et al., 2014), and that disclosure to chatbots can shape emotional and relational experience within the interaction (Ho et al., 2018).

At the same time, participants drew clear boundaries around AI's relational role. Even when AI was experienced as comforting, participants often described the interaction as lacking genuine emotional depth and human presence. This is consistent with work arguing that chatbots may not provide the same quality of social connection as humans, even when they are engaging or supportive (Folk et al., 2024). It also aligns with relationship science perspectives, emphasizing that relational connection involves more than conversational fluency, including mutual responsiveness and shared reality (Reis et al., 2004; Smith et al., 2025).

Anthropomorphism, or the tendency to attribute human-like qualities to non-human agents, may help explain why AI chatbots can feel socially engaging. Participants' reports, however, suggest that perceived realism alone does not yield relational fulfilment. This aligns with conceptual work indicating that anthropomorphic cues can promote attachment to non-human entities while remaining limited in their capacity to meet deeper relational needs associated with human connection (Wan & Chen, 2021).

Ambivalence and wellbeing implications

Participants' evaluations of AI use were marked by ambivalence. AI was described as supporting well-being in certain contexts by providing emotional relief or structuring thoughts. However, participants also expressed concern that reliance on AI could undermine well-being by reducing effortful engagement, or fostering dependency. This duality reflects emerging concerns in the literature that while AI companions may enhance short-term comfort, excessive reliance may weaken emotional resilience or displace more demanding but meaningful forms of coping (O'Driscoll et al., 2025; Zhang et al., 2025). Participants' reflections indicated an awareness of this trade-off, with many describing cautious and bounded patterns of AI use rather than continuous reliance.

Additionally, participants distinguished between emotional relief and emotional fulfilment. AI was often described as useful for managing distress but insufficient for meeting deeper relational needs. This distinction aligns with relational frameworks emphasizing that mutual responsiveness and shared meaning are central to emotional fulfilment and cannot be fully replicated by artificial agents (Reis et al., 2004). Within participants' descriptions, AI-related emotional relief appeared situational and provisional, rather than

a substitute for the relational processes associated with longer-term emotional wellbeing.

Motivation toward human relationships after AI use

Participants' responses reflected varied orientations toward human relationships following AI use, rather than a single consistent pattern. For many participants, motivation toward human connection remained stable. AI was positioned as complementary, serving low-stakes or functional roles without displacing relational priorities. This supports prior work suggesting that AI engagement does not necessarily reduce interest in human connection when boundaries are maintained (Wei et al., 2023). However, unlike studies that focus primarily on engagement with AI companions or attachment to AI systems, the present study places AI use within participants' wider orientation toward human relationships (Bayer et al., 2025; Hu et al., 2025). AI was not presented as a direct substitute for human connection. Instead, participants appeared to reserve AI for interactional spaces where immediacy and reduced obligation were valued, while human relationships remained associated with reciprocal and emotionally sustained connection.

Others described a reorientation of social motivation. In some cases, participants explained using AI in ways that appeared to defer social interaction temporarily, giving them space for emotional regulation or cognitive preparation before engaging with others. In these reports, AI was described less as a substitute than as an interim space that influenced how participants prepared for or delayed human interaction. Such patterns resonate with self-regulation research, which shows that individuals manage social demands by temporarily withdrawing from high-effort interactions when cognitive or emotional resources are depleted (Karremans et al., 2015).

A smaller subset described reduced motivation to initiate human interaction following prolonged AI use, particularly when AI lowered the perceived effort required to meet certain needs. These experiences resonate with findings on problematic AI use and psychological dependence, particularly where fear of negative evaluation or social anxiety makes AI interaction more appealing than direct human engagement (Huang et al., 2025; Xie et al., 2023). Conversely, some participants reported renewed motivation for human interaction after encountering the limitations of AI, suggesting that awareness of AI's relational shortcomings can reassert the value of human connection. In summary, these patterns suggest that participants did not describe AI as having a single, consistent influence on their social motivation. Instead, participants' accounts point to context-dependent interpretations shaped by individual experiences, usage patterns, and the relational functions they attributed to AI.

Theoretical and practical implications

These findings can be understood as positioning AI chatbots not as replacements for human relationships, but as context-sensitive tools embedded within broader relational ecologies. While participants sometimes attributed human-like qualities to AI, the appeal of AI does not appear to be fully accounted for by anthropomorphism alone. Instead, AI was described as supporting low-demand interaction associated with reduced emotional and cognitive effort, while remaining distinct from the relational depth and mutual responsiveness associated with human relationships.

From a theoretical perspective, SET and social self-efficacy are used as interpretive lenses to understand how participants described relational costs and interactional strain in the context of AI use as a low-demand alternative. These findings suggest that, within this dataset, attention to emotional labor and self-regulation may complement frameworks that focus primarily on perceived humanness or emotional realism. Practically, these findings suggest that concerns about AI replacing human relationships may be less prominent for many participants. However, they also reflect concerns expressed by some participants when AI was described as a primary emotional outlet, particularly among those already experiencing social difficulty. These observations suggest that participants themselves often distinguished between bounded AI use and more continuous or emotionally dependent engagement.

Participants' responses further suggest that engagement with AI was evaluated more positively when it remained reflective and limited rather than continuous or unexamined. These accounts highlight the perceived importance of recognizing the limits of AI systems, particularly in relation to contextual understanding and responsiveness. They also point to the continued value participants placed on human relationships, even where they involved greater emotional effort. Rather than indicating specific interventions, these observations reflect how participants themselves made sense of the role of AI in relation to their wellbeing and social interactions. As such, they offer preliminary insight into how participants navigated the balance between convenience and relational depth in the context of emerging AI technologies.

Limitations and future directions

This study relied on self-reported data from a sample of university students, which limits the generalizability of the findings to broader age groups and social contexts. Most participants resided in urban settings, such as Istanbul, and experiences or relational norms common in rural or semi-urban contexts may therefore be underrepresented.

In addition, the use of convenience sampling and dissemination of the survey via WhatsApp networks may have increased participation among individuals already familiar with or interested in AI technologies, introducing a potential selection bias.

The findings are based on participants' subjective perceptions and retrospective accounts of their experiences with AI chatbots and human relationships, rather than on observable behavioral outcomes. As a result, the study captures how participants make sense of their relational experiences but does not allow direct assessment of behavioral indicators such as frequency of social interaction, relationship quality, or changes in social engagement. In addition, accounts from infrequent users may rely on more distant or limited experiences, which introduces the possibility of recall bias. The use of an open-ended online questionnaire facilitated anonymity and accessibility, but it limited opportunities for follow-up probing and contextual elaboration that would be possible in interviews or longitudinal qualitative designs. Furthermore, as the dataset included responses originally written in Turkish and subsequently translated into English, there is a possibility that subtle nuances of meaning, tone, or culturally specific expressions may not have been fully preserved in translation, despite efforts to maintain interpretive accuracy.

Cultural context constitutes an additional limitation of this study. The sample was drawn from a specific national and institutional setting, and participants were embedded in cultural norms that shape approaches to emotional disclosure and help-seeking. Türkiye is generally positioned toward the collectivist end of Hofstede's individualism-collectivism dimension, where social relationships and group obligations are emphasized over personal independence (Hofstede, 2001). Although approximately 25% of participants were non-Turkish, they were predominantly from societies that are also commonly characterized as collectivist. These shared cultural orientations may influence how AI chatbots are evaluated and the relational roles attributed to them, limiting the transferability of the findings to more individualistic contexts.

Future research should examine AI chatbot use in contexts of relational intimacy and companionship more directly. As AI systems are increasingly designed and marketed to simulate emotional closeness, a growing body of empirical work indicates that users may form attachment-like or partner-oriented relationships with AI agents. Recent systematic reviews synthesizing research on romantic and companion AI relationships identify both perceived benefits, such as emotional support and feelings of connection, and emerging concerns related to dependency, relational displacement, and psychological vulnerability (Ho et al., 2025).

Further research would benefit from more fine-grained differentiation between types of AI systems and patterns

of use, as participants in the present study referred to AI chatbots in general terms. Greater attention to chatbot functions, contexts of use, emotional expectations, and variation in frequency and intensity of engagement would allow clearer distinctions between occasional and more sustained use, which may be associated with different relational experiences. These directions highlight the need for longitudinal and cross-cultural studies to better understand how engagement with AI evolves over time and how it relates to human relationships and relational satisfaction.

Conclusion

Growing engagement with AI chatbots has introduced new ways in which participants described managing emotional effort and social interaction, without fundamentally altering the value they attributed to human relationships. AI was used to reduce relational effort, provide temporary emotional relief, and support self-regulation, while remaining distinct from experiences of social connection. Human relationships continued to be described in terms of emotional depth and shared presence, even when they were experienced as demanding.

Engagement with AI appeared to vary alongside situational needs and differences in how participants described their confidence in social interaction, rather than reflecting a general withdrawal from human connection. For many participants, motivation toward real-life relationships appeared stable, with AI occupying a complementary and bounded role. Others reported context-dependent shifts in how social effort was timed or allocated, particularly during periods of emotional fatigue. Interactions with AI were described as emotionally limited, which some participants associated with a continued emphasis on the value of human relationships.

These findings provide a descriptive account of how participants interpreted AI chatbots as low-demand relational resources situated within existing social dynamics, rather than as substitutes for interpersonal connection. The study does not establish causal relationships or generalizable patterns but highlights how participants made sense of their engagement with AI within the contexts in which they were situated. The negotiation of these boundaries may become increasingly significant as AI systems continue to advance in emotional responsiveness and social presence.

Author contributions Nurashikin Salim led the study and prepared the manuscript. Ayşe Şafak provided supervisory and methodological guidance. Merve Güçlü Aydoğan supported data collection and interpretation of Turkish-language responses. All authors contributed to critical review and revision of the manuscript and approved the final version.

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Data availability The datasets generated and analyzed during the current study are not publicly available due to confidentiality and data protection considerations. The qualitative data were collected under assurances of privacy, and participants did not provide consent for public data sharing.

Declarations

Ethical approval This study was reviewed and approved by the Institutional Review Board of Ibn Haldun University (Approval No. 2025/11–30).

Informed consent Informed consent was obtained from all individual participants included in the study prior to their participation.

Consent to publish All authors have read and approved the final manuscript and consent to its publication in *Current Psychology*.

Conflict of interest The authors declare that they have no conflict of interest.

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