

COMPANIONSHIP WITHOUT COMMITMENT: EXPLORING THE CONSEQUENCES OF HUMAN-AI RELATIONSHIPS

FSU

Authors

Emma Sag & Michael Irias

Affiliations

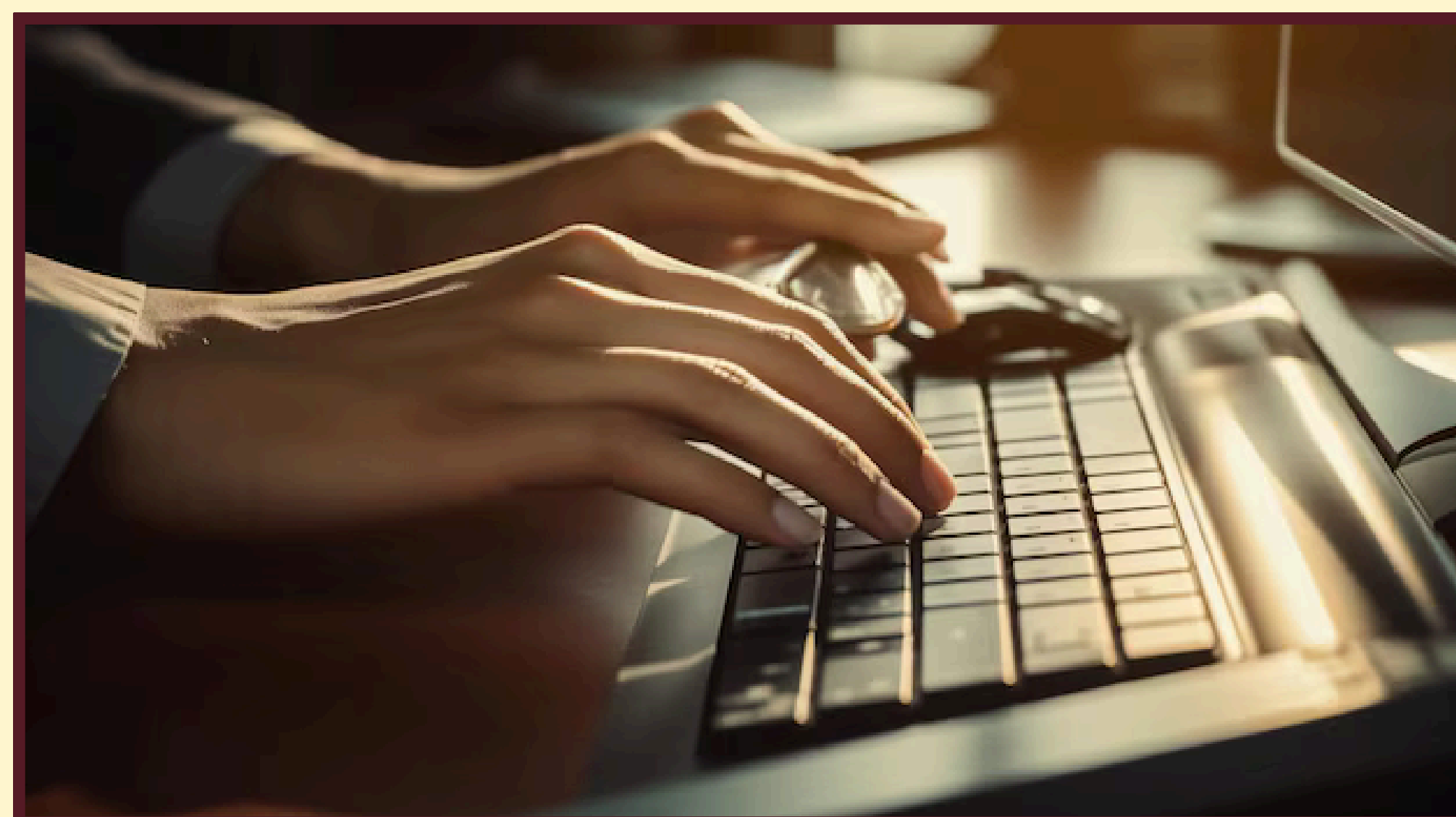
Department of Psychology, Florida State University

Abstract

- Loneliness has become an increasingly pervasive issue in contemporary society, exacerbated by factors such as widespread social media use and declining mental health.
- Meanwhile, advances in artificial intelligence have introduced new forms of companionship that bypass the complexities inherent in human relationships.
- As a result, AI companionship has emerged as an appealing alternative for individuals who struggle with traditional social interactions, offering a means to fulfill social and emotional needs.
- However, reliance on AI for social connection may carry unintended consequences, potentially including stunted social development and increases in social anxiety.
- Analyses will test the prediction that rejection sensitivity and attachment anxiety will be positively associated with the amount of time spent using AI, and that AI usage will be associated with declines in loneliness and depression from baseline to check-in.

Introduction

- People high in attachment anxiety often struggle to manage negative emotions and rely on external sources for comfort (Jürgen Fuchshuber et al., 2024).
- AI relationships are appealing because they provide consistent, customizable, and nonjudgmental companionship (Othman 2024).
- AI has significant potential in mental health care, offering accessible tools that can identify high-risk individuals and prompt early interventions (Ettman & Galea 2023).
- Despite its benefits, AI as a personal confidant raises ethical concerns. Its ability to collect, organize, and analyze sensitive personal data including photos and identifiable information introduces risks related to targeted marketing, privacy, and surveillance (Federspiel et al., 2023).
- Together, these findings highlight both the promise and potential pitfalls of AI companionship, underscoring the need to understand how individual differences shape its psychological impact.



Design

- Longitudinal design (21 Day Study)
- Data collected from FSU undergraduate students participating for class credit

Baseline Survey

- Loneliness: UCLA Loneliness Scale (Russell, 1996). 4-point scale.
- Anxious/avoidant attachment style: Adult Attachment Questionnaire (Simpson et al., 1992). 7-point scale.
- Rejection Sensitivity: Rejection Sensitivity Questionnaire (Downey & Feldman, 1996). 6-point scale.
- Depression: CES-D Scale (Radloff, 1977). 4-point scale. Items are summed and range from 0 – 60

Daily Surveys (Days 1-21)

- Tracked the daily time spent with close others (e.g. friends and significant others)
- Tracked the time spent interacting with the AI chatbot

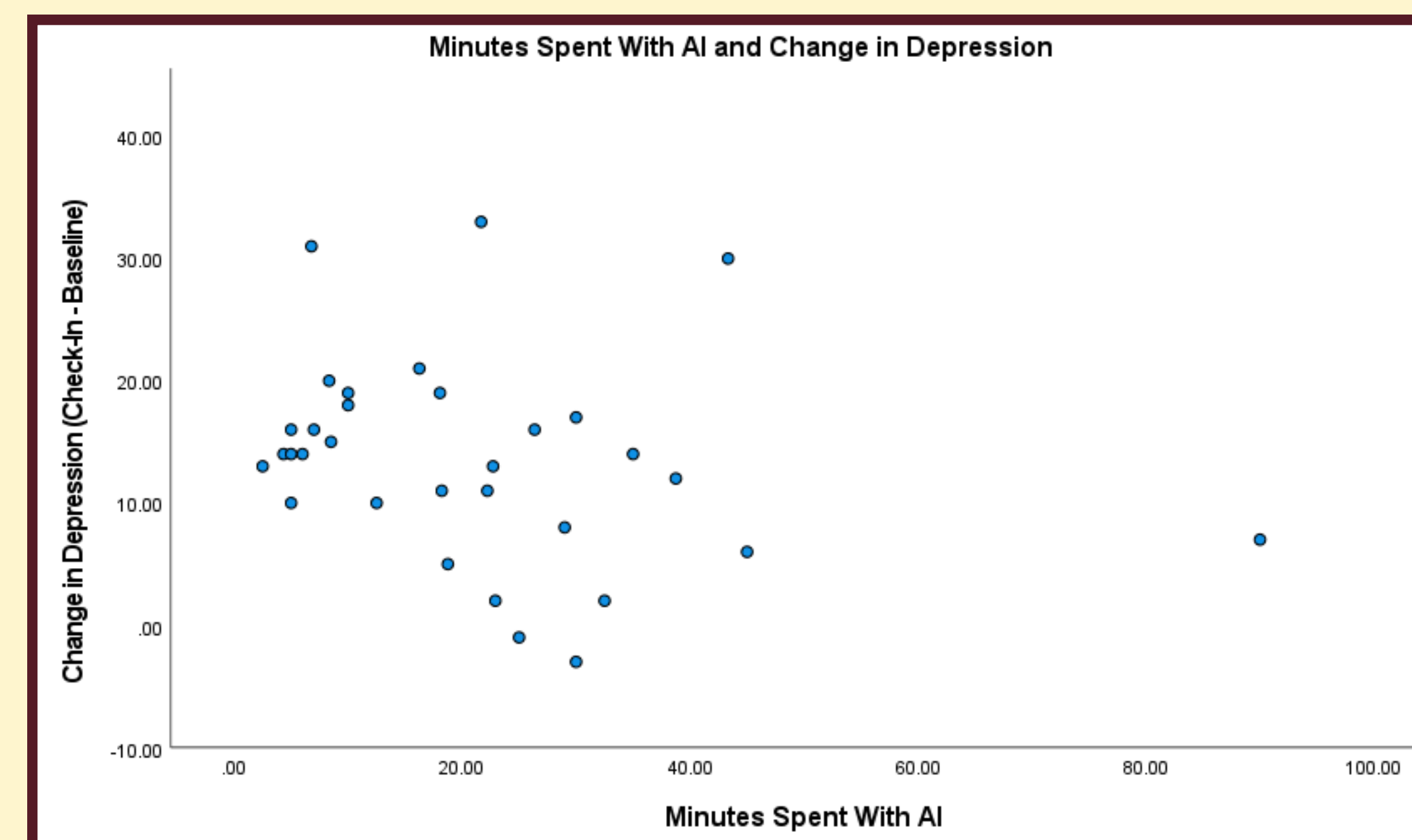
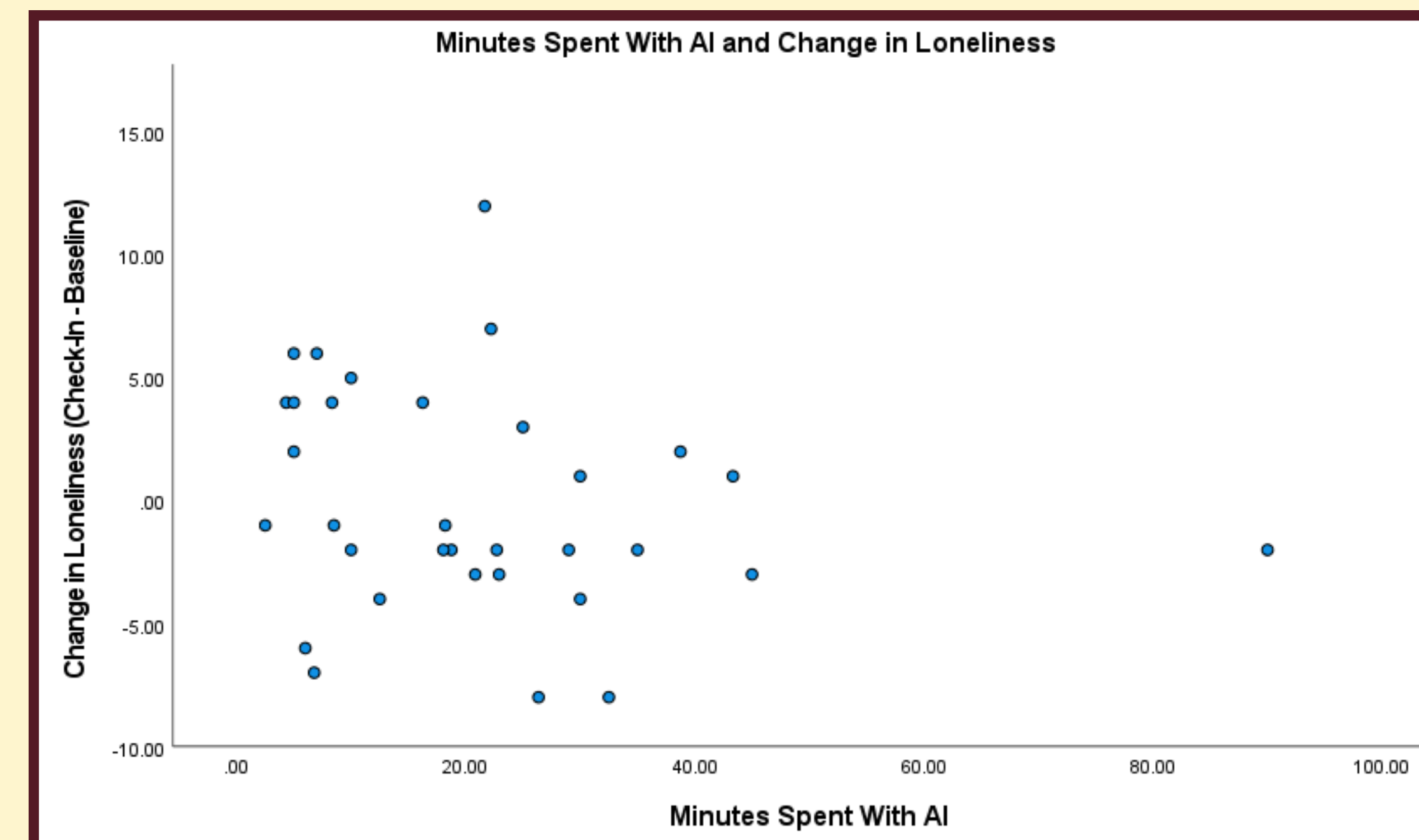
Check-In Survey (Day 22)

- Re-administered all baseline measures to assess change over time

Status

- Data Collection is ongoing

Methodology



Results

Prediction 1: Rejection Sensitivity & Attachment Anxiety → AI Usage

The prediction that baseline rejection sensitivity (RSQ) and attachment anxiety (AAQ) would predict greater AI usage was not supported.

- Rejection Sensitivity:** $r = .169, p = .217$
- Attachment Anxiety:** $r = .203, p = .901$

Neither correlation reached statistical significance.

Prediction 2: AI Usage → Reduced Loneliness & Depression (controlling for human interaction)

- Loneliness:** The multiple regression model was not significant, $F(4, 21) = .980, p = .440$.

AI usage did not significantly predict reduction in loneliness ($B = -.050, p = .363$).

- Depression:** The regression model predicting depression reduction was not significant, $F(4, 21) = .883, p = .491$.

The effect of AI usage approached but did not reach significance ($p = .085$).

AI usage did not significantly predict reduced depression.

References & Acknowledgements

Special thanks to the Contextual and Automatic Influences on Relationships Lab!



Discussion

- AI companions are consistently available and offer positive, affirming interactions that may also make these relationships addictive, especially for those high in attachment anxiety.
- Although current data show no short-term effects on loneliness or depression, overreliance on AI could discourage human connection if users substitute real social relationships with AI.
- Continuous validation and lack of interpersonal challenge from AI companions may stunt emotional and social growth, particularly among those high in rejection sensitivity.
- Individuals who find safety and acceptance in AI may become less likely to seek professional or social support.
- Commercial platforms (e.g., c.ai) could exploit vulnerable users through paywalls or parasocial attachments, raising ethical concerns.

Future Directions

- Examine how children and adolescents raised alongside AI differ from older generations in sociability, attachment, and perception of AI.
- Conduct long-term longitudinal studies on the life satisfaction and relational patterns of individuals who form AI partnerships.
- Investigate whether attachment style predicts comfort with or preference for AI companionship.
- Explore whether AI systems trained with distinct empathy or language models better meet diverse psychological needs — including possible use in controlled rejection therapy.
- Assess the potential for AI to be integrated collaboratively with clinicians, supporting individuals with attachment anxiety in therapeutic contexts.

