

DATA RESEARCH

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2nd EDITION

Beyond Empathy

The Role of AI's Judgment Neutrality in Patient Vulnerability

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1. INTRODUCTION



Do you only have one minute?

Patients experiencing vulnerability often hide sensitive health information to avoid judgment. While AI is criticized for lacking empathy, we propose that AI's judgment neutrality (not empathy) may be its greatest strength for encouraging honest disclosure in healthcare.

From a teen hiding an eating disorder to an older adult facing early Alzheimer's symptoms, health-related vulnerability takes many forms. When people feel vulnerable, they often withhold important information from healthcare providers due to fear of judgment^{1, 2}.

AI-powered agents are increasingly used in healthcare for administrative tasks like appointment scheduling, due to their ability to handle multiple requests simultaneously. However, their adoption in emotionally sensitive contexts (e.g., mental health support) remains limited. This limitation stems primarily from concerns that AI lacks the empathy required to connect with patients on an emotional level³.

Yet this perspective may overlook a critical feature: AI's judgment neutrality. Unlike humans, AI agents process inputs without emotional evaluation. Their perceived objectivity and detachment may make it easier for vulnerable individuals to speak freely.

We propose that judgment neutrality serves as a key advantage. Human providers may inadvertently trigger patients' concerns about how they are perceived, whereas AI interactions remove these pressures entirely. By eliminating the need to manage others' perceptions, AI enables more authentic communication and better emotional outcomes for patients experiencing vulnerability.

2. METHODS AND MATERIALS



1
Concluded
text-mining
study

2
Concluded
experimental
studies

2
Planned
experimental
studies

Study 1

We examined what makes people find health apps helpful by analyzing 7,674 user reviews from the Google Play Store. Using GPT-4o trained with terms from the literature, we created two scores based on reviews: how vulnerable users felt and how empathetic they found the apps.

Study 2

Participants interacted with either a human or an AI agent in a telemedicine service when experiencing back pain (i.e., low vulnerability).

Study 3

Participants interacted with either a human or an AI agent when contacting a national health line, experiencing either back pain (i.e., low vulnerability) or anxiety (i.e., high vulnerability).

Study 4 & 5

Will test whether disclosure type matters by comparing symptom reporting (i.e., low vulnerability, e.g., 'I feel a pain in my chest') versus emotional sharing (i.e., high vulnerability, e.g., 'I feel I'm a burden for my family'). Additionally, we will explore whether people who first interact with AI continue to share vulnerable information even after being transferred to human providers (e.g., doctors).

3. METHODS AND MATERIALS

Study 1

In physical health (i.e., a low vulnerability setting), vulnerability and empathy both matter for a user to find an app helpful, but they work differently depending on how vulnerable someone feels.

In mental health (i.e., a high vulnerability setting), more vulnerable users find apps more helpful; empathy doesn't significantly impact ratings. This suggests that in vulnerable contexts, users may value non-judgmental interactions over empathetic ones.

Study 2

In this low vulnerability context (i.e., back pain scenario), participants were more satisfied with human agents than AI agents.

Study 3

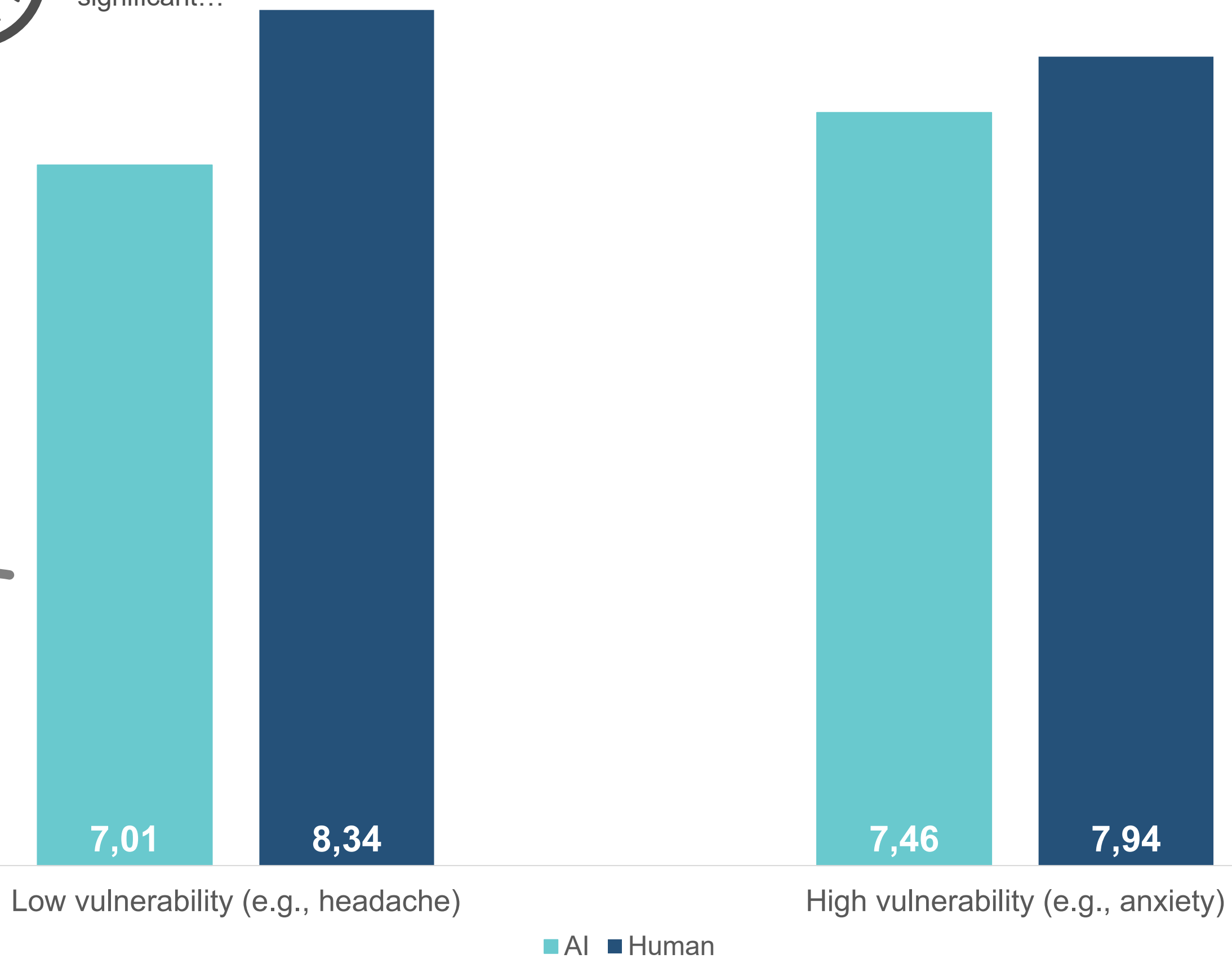
Patient preferences depend on how vulnerable they're feeling. In low vulnerability settings, patients prefer human agents (e.g., doctors) over AI agents. In high vulnerability settings, AI's judgment neutrality becomes valuable, and the resistance to AI disappears.



This means: patient preferences depend on vulnerability level. When vulnerability is low, patients prefer human agents. When vulnerability is high, patients prefer AI's judgment neutrality over human empathy (challenging the assumption that AI needs empathy to be effective in healthcare).



The difference between these two columns is significant...



... but between this, is insignificant...

5. REFERENCES

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6. ACKNOWLEDGMENTS

This study is co-authored with Professor Diego Costa Pinto (NOVA IMS).

This work was supported by FCT - Fundação para a Ciência e Tecnologia, I.P., under the projects UIDB/04152 - Centro de Investigação em Gestão de Informação (MagIC)/NOVA IMS, 2023.03729.BD (DOI: <https://doi.org/10.54499/2023.03729.BD>) and 2024.07397.IACDC (DOI <https://doi.org/10.54499/2024.07397.IACDC>).

NOVA Information Management School, 10 July 2025

4. CONCLUSION

Patients experiencing vulnerability often hide sensitive health information to avoid judgment. While AI is criticized for lacking empathy, our findings across three studies (and two additional planned) show that AI's judgment neutrality is a key asset that encourages patients to share sensitive information. While previous research has emphasized AI's lack of empathy as a limitation, we find that its emotional neutrality and perceived judgment-free nature can foster greater emotional openness.

This contributes to growing work exploring the role of AI in healthcare, not as a replacement for human empathy, but as a complementary tool that offers distinct advantages in specific contexts.

Future research could examine how these effects persist across cultures, diagnoses, and types of AI agents (e.g., voice-based vs. text-based).

ONLINE
VERSION

