

# Perceptions of Artificial Intelligence in Inflammatory Rheumatic Disease Management: A Patient Survey at a Rheumatology Outpatient Clinic

Yik Zhen Chin<sup>1</sup>, Jing Fang Eng<sup>1</sup>, Intiaz Qistina Che Ahmad Tarmizi<sup>1</sup>, Lim Jia Jun<sup>1</sup>, Muhammad Khairulhakim Mohammad Amirrudin<sup>1</sup>, Emmanuel Yanga Saturlino Tartisio<sup>1</sup>, Lim Ai Lee<sup>2</sup>, H'ng Mooi Khin<sup>2</sup>, Fahd Adeeb<sup>1, 2</sup>

1. RCSI & UCD Malaysia Campus  
2. Rheumatology, Hospital Pulau Pinang

## Introduction

- AI is increasingly used in healthcare, especially in chronic disease management.
- Concerns remain regarding data privacy, physician autonomy, and patient trust.
- Patient perceptions of AI in rheumatology are underexplored.

## Objective

To assess rheumatic patients at rheumatology outpatients on their perception of using AI for their disease management.

## Methodology

- Structured questionnaires in multiple languages will be used to collect data.
- The sampling process begins with random selection of a patient who visited on a particular day.
- From that point onward, every third patient is systematically selected at regular intervals until the required sample size is achieved.

## Results

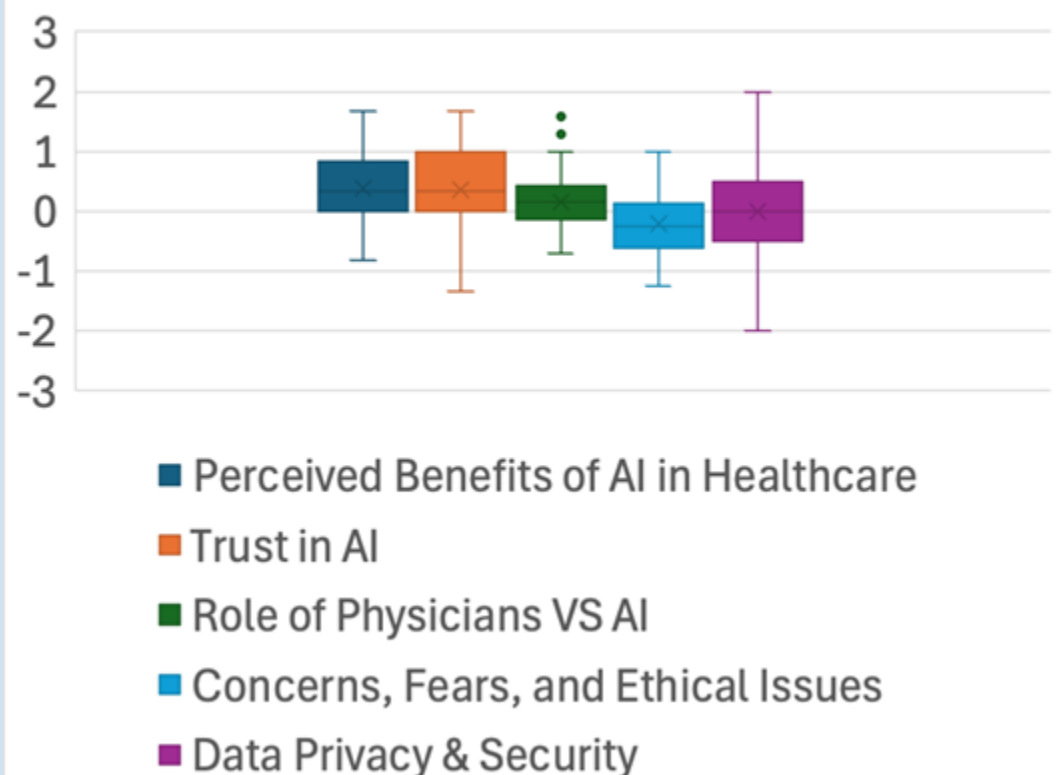
**Demographics:** Median age 40–49 years (IQR: 30); majority were female (76%).

**Digital Engagement:** 80% used electronic devices daily; 84% accessed the internet daily.

**AI Awareness & Perception:** While 76% were aware of AI, only 12% demonstrated a strong understanding; most acknowledged AI's healthcare benefits (median score: +0.33) and showed moderate trust (median: +0.33).

**Ethical Concerns:** Participants were mildly concerned about AI ethics (median: -0.25), especially data security, though responses on privacy and security were neutral (median: 0).

## Patient Perceptions of AI in Healthcare: Theme-Based Summary Scores



Scale: -2 = Strongly Disagree (Negative Perception), +2 = Strongly Agree (Positive Perception)

## Conclusion

Rheumatic patients were generally open to AI in healthcare but expressed ethical concerns. Enhancing patient awareness and addressing privacy fears are key to supporting ethical AI adoption in clinical practice.

## Discussion

Patients showed a modestly positive perception of AI, particularly in terms of trust and healthcare benefits. Neutral responses to physician-AI dynamics suggest uncertainty rather than resistance. Mild concern over ethical issues like data security indicates the need for clear communication and patient education. Larger, multicentre studies are needed to validate these findings and explore demographic and/or cultural variations in patient perceptions.

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