The present analysis explores the demographic and outcome characteristics of participants stratified by AI Transparency, defined as whether participants were aware (AI-Aware) or unaware (AI-Unaware) that they were interacting with an AI system. The sample comprised 187 participants, with 91 in the AI-Aware group and 96 in the AI-Unaware group. The mean age of participants was comparable between groups (AI-Aware: M = 33.8, SD = 12.1; AI-Unaware: M = 32.6, SD = 10.8), with both groups exhibiting a similar age range (19–68 years for AI-Aware, 19–64 years for AI-Unaware). The distribution of age was slightly right-skewed in both groups, as visualized in the pairplot, with the majority of participants falling between 25 and 40 years.

Time taken to complete the study, measured in minutes, was also similar across groups (AI-Aware: M = 25.2, SD = 13.2; AI-Unaware: M = 24.9, SD = 13.1), indicating no substantial difference in engagement or task duration attributable to AI Transparency. The distributions of time taken were nearly overlapping, with both groups showing a wide range of completion times, as reflected in the pairplot.

Key outcome variables, including user satisfaction, level of empathy perceived, and treatment outcomes, were examined in relation to AI Transparency. User satisfaction scores were nearly identical between groups, with both AI-Aware and AI-Unaware participants reporting a median satisfaction of 18 (IQR: 15–18 for both groups), and maximum scores reaching 21. The distribution of user satisfaction was symmetric and showed no evidence of ceiling or floor effects. Similarly, the level of empathy perceived was consistent across groups, with both groups reporting a median of 13 and a comparable interquartile range, suggesting that AI Transparency did not meaningfully influence perceived empathy.

Treatment outcomes, however, showed a modest difference between groups. The AI-Aware group reported a slightly higher mean treatment outcome score (M = 18.2, SD = 6.9) compared to the AI-Unaware group (M = 16.7, SD = 7.6). The median treatment outcome was also higher in the AI-Aware group (20 vs. 19), and the upper quartile was marginally greater (24 vs. 23.25). The range of treatment outcomes was broader in the AI-Unaware group (min = -12) compared to the AI-Aware group (min = -5), suggesting greater variability in responses when participants were unaware of the AI nature of the system.

Analysis of categorical variables revealed balanced distributions across AI Transparency conditions. For Participant Advice Style, both groups showed a preference for the empathetic style (AI-Aware: 53 empathetic, 38 rational; AI-Unaware: 55 empathetic, 41 rational), with no substantial difference in the proportion of advice styles between groups. This suggests that the nature of advice provided was not influenced by AI Transparency. Regarding Participant Problem, stress was the most frequently reported issue in both groups (AI-Aware: 54; AI-Unaware: 52), followed by depression (AI-Aware: 19; AI-Unaware: 24) and anxiety (AI-Aware: 18; AI-Unaware: 20). The distribution of problem types was highly similar between groups, indicating that the presenting problem was independent of AI Transparency.

Visualizations, including pairplots and countplots, corroborated these findings. The pairplot demonstrated substantial overlap in the distributions of age, time taken, user satisfaction, empathy, and treatment outcomes between AI-Aware and AI-Unaware groups, with no discernible clustering or separation by AI Transparency. Countplots for Participant Advice Style and Participant Problem further confirmed the balanced distribution of these categorical variables across groups.

In summary, the descriptive analysis indicates that AI Transparency did not substantially affect participant demographics, engagement, or the distribution of advice style and problem type. While user satisfaction and perceived empathy were similar across groups, there was a modest trend toward higher treatment outcomes in the AI-Aware group. These findings suggest that making participants aware of the AI nature of the system may have a small positive effect on perceived treatment efficacy, without influencing satisfaction or empathy.