

Understanding Trust in AI Symptom Checker Applications Through Empathy and Privacy

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ABSTRACT

The increasing use of artificial intelligence in healthcare has introduced AI symptom checker applications as accessible tools for identifying health conditions and supporting early medical decision making. Despite their growing adoption among young adults, trust remains a critical factor influencing user acceptance of these applications. This study examines the influence of perceived empathy and privacy concerns on trust in AI symptom checker applications among young adults. A quantitative approach was employed using a questionnaire distributed to young adults aged 18 to 35 who had experience using AI-based symptom checker applications or digital healthcare platforms with symptom analysis features. A total of 168 valid responses were collected and analyzed using multiple linear regression through SPSS. The findings indicate that perceived empathy has a positive and significant effect on trust, while privacy concerns have a negative and significant effect on trust. The regression results also show that perceived empathy has a stronger influence than privacy concerns in shaping user trust toward AI symptom checker applications. These findings highlight the importance of integrating empathetic communication features and strengthening data privacy protection in AI healthcare technologies. This study contributes to the development of human-centered healthcare innovation by emphasizing that trust in AI systems is shaped not only by technical functionality but also by emotional interaction and ethical data management.

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1. INTRODUCTION

The rapid advancement of artificial intelligence has significantly transformed healthcare services by improving access to medical information and enabling faster health-related decision making. AI-driven healthcare technologies are increasingly used not only in hospitals and clinical settings but also through digital platforms that allow individuals to assess symptoms, access health recommendations, and monitor their conditions independently [1, 2]. This transformation aligns with the global agenda of the United Nations Sustainable Development Goals, particularly SDG 3 on Good Health and Well-being, which emphasizes equitable access to quality healthcare services, as well as SDG 9 on Industry Innovation and Infrastructure, which supports

the development of inclusive digital health technologies. In this context, artificial intelligence has emerged as an important tool in expanding healthcare accessibility while supporting more efficient and preventive health management [2].

One of the most rapidly growing applications of AI in healthcare is the use of AI symptom checker applications. These applications enable users to input symptoms and receive automated assessments regarding possible health conditions and recommendations for next steps. The increasing popularity of digital healthcare services among young adults has contributed to broader adoption of symptom checker applications, as this age group tends to rely on digital platforms for information seeking and self-management. AI symptom checker applications offer practical benefits such as convenience, accessibility, and immediate feedback, making them increasingly relevant in supporting preventive healthcare and encouraging earlier health awareness [3]. However, despite their accessibility and efficiency, the effectiveness of these technologies depends heavily on whether users perceive the systems as trustworthy and reliable.

Trust plays a critical role in the acceptance of healthcare technologies because medical decisions involve personal vulnerability, uncertainty, and risk. Unlike other digital platforms, healthcare applications require users to disclose personal symptoms and rely on automated recommendations that may influence further treatment decisions. One factor that may strengthen trust in AI symptom checker applications is perceived empathy [4]. In the context of healthcare technology, perceived empathy refers to the extent to which users feel that the AI communicates in an understanding, supportive, and reassuring manner when responding to health concerns. Human-centered AI systems that demonstrate empathetic interaction may reduce anxiety and increase confidence in the information provided. Since symptom checker applications are often used during moments of uncertainty, empathetic communication may become an essential element in shaping positive trust perceptions [5, 6].

At the same time, privacy concerns remain a major challenge in digital healthcare adoption. AI symptom checker applications often require users to provide sensitive health information, including symptoms, medical history, and behavioral health-related data. Concerns regarding data security, unauthorized access, and misuse of personal information may create hesitation and reduce trust in healthcare AI systems. This issue has become increasingly relevant as digital health platforms continue collecting larger amounts of personal medical data. While technological innovation offers important opportunities to improve healthcare accessibility and efficiency, users may remain cautious if they perceive insufficient privacy protection. Therefore, understanding the balance between emotional interaction and ethical data management is important in supporting sustainable adoption of AI healthcare technologies [7].

Previous studies have discussed trust in artificial intelligence, digital healthcare adoption, and privacy concerns separately. However, limited research has specifically examined how perceived empathy and privacy concerns simultaneously influence trust in AI symptom checker applications among young adults. This gap is important because young adults represent a highly active digital population and are increasingly exposed to AI-based healthcare services. Furthermore, the integration of empathy and ethical privacy considerations remains central to the development of human-centered healthcare innovation [8, 9]. Therefore, this study aims to examine the influence of perceived empathy and privacy concerns on trust in AI symptom checker applications among young adults. The findings are expected to contribute to the development of empathetic and trustworthy healthcare AI systems while supporting broader goals of digital health inclusion and sustainable healthcare innovation.

2. RESEARCH GAP

2.1. AI Symptom Checker Applications

Artificial intelligence has increasingly transformed healthcare services, including the emergence of AI-based symptom checker applications that assist users in identifying symptoms and obtaining preliminary health recommendations. These applications are designed to provide rapid and accessible health-related information by analyzing symptoms entered by users and generating possible medical suggestions. The growing popularity of AI symptom checker applications is strongly associated with increasing digital health adoption, especially among young adults who are highly familiar with mobile technologies and online health platforms.

The use of symptom checker applications offers several advantages, including faster access to health information, convenience, and reduced dependence on direct clinical consultation for initial health concerns. For young adults, these applications can serve as an immediate source of guidance before seeking professional

healthcare services. This aligns with broader healthcare digitalization trends and supports Sustainable Development Goal 3 regarding good health and well-being by improving access to health information and promoting preventive healthcare behaviors [10]. Despite these advantages, user acceptance of AI symptom checker applications remains varied. Because the recommendations are generated by artificial intelligence rather than healthcare professionals, users may question whether the system can be trusted and whether they feel comfortable relying on it. This makes trust an essential factor influencing continued use and acceptance of AI-powered health technologies.

2.2. Perceived Empathy and Trust

Empathy has traditionally been recognized as an important component in healthcare interactions because patients often value not only informational accuracy but also emotional understanding and reassurance. In digital healthcare environments, this expectation remains relevant even when the interaction occurs through AI systems rather than human professionals [11]. Users may evaluate whether an AI system communicates in a way that feels responsive, attentive, and considerate of their concerns. Perceived empathy refers to users' perception that the AI application provides responses in a caring, understandable, and supportive manner. In symptom checker applications, perceived empathy may influence whether users feel emotionally comfortable sharing symptoms and following AI-generated recommendations. When users perceive that the interaction is more personalized and understanding, they may develop stronger confidence toward the system.

Previous technology adoption studies suggest that emotional perceptions positively influence trust formation in digital services. In healthcare contexts, this relationship may become even more important because users often seek reassurance during uncertain or sensitive situations. Therefore, empathy is expected to contribute positively to trust in AI symptom checker applications.

H1: Perceived empathy positively influences trust in AI symptom checker applications.

2.3. Data Privacy Concerns and Trust

Data privacy concerns refer to users' worries regarding how personal information is collected, stored, accessed, and potentially misused. In healthcare technologies, privacy concerns become particularly significant because users often disclose sensitive health-related information during digital interactions [12]. AI symptom checker applications typically require users to provide symptom details and, in some cases, personal health histories to generate recommendations. This may create hesitation when users are uncertain about whether their information is adequately protected. If users feel their personal data could be exposed or misused, trust in the system may decrease [13].

Prior studies in digital health and information systems consistently highlight privacy concerns as a major factor influencing technology acceptance. In the context of AI symptom checker applications, privacy concerns are expected to negatively affect users' trust because concerns over data security may reduce confidence in the platform's reliability and safety.

H2: Data privacy concerns negatively influence trust in AI symptom checker applications.

2.4. Trust and Willingness to Use

Trust has been widely recognized as an important determinant of technology acceptance, particularly in healthcare contexts where users rely on digital platforms to access sensitive and personally relevant information. In AI symptom checker applications, trust becomes especially important because users depend on the system's recommendations when assessing their health conditions [14].

When users perceive AI applications as reliable, secure, and capable of providing relevant health-related guidance, they are more likely to develop a stronger intention to continue using the technology. Prior studies in digital health adoption also indicate that trust positively influences users' behavioral intention and willingness to engage with healthcare technologies. In the context of AI symptom checker applications, trust may increase users' confidence in relying on the system as a source of preliminary medical information. Therefore, stronger trust is expected to encourage willingness to use the application.

H3: Trust positively influences willingness to use AI symptom checker applications.

2.5. Previous Studies and Research Gap

Previous studies have increasingly explored the implementation of artificial intelligence in healthcare, particularly through digital health tools that provide users with fast and accessible health-related information. Several studies reported that AI-based healthcare technologies improve convenience and support health decision-making, especially among digitally active users. However, most of these studies primarily focus on technical performance, usability, and general adoption.

In addition to functional performance, trust has become an important factor in determining whether users are willing to rely on AI in healthcare contexts. Nevertheless, the factors influencing trust are still discussed inconsistently. Some studies emphasize technological capability, while others focus on broader digital health adoption without specifically examining emotional perceptions such as empathy. At the same time, privacy concerns remain highly relevant because AI symptom checker applications often require users to disclose personal health information.

Research focusing specifically on young adults is also still limited, even though this group represents one of the most active users of digital technologies and increasingly relies on digital platforms for health-related information. Based on these findings, several research gaps can be identified, as summarized in Table 1.

Table 1. Summary of Previous Studies and Research Gap

Previous studies	Main findings	Limitation identified	Research contribution
[15]	AI-based healthcare applications improve accessibility and digital health support	Limited discussion regarding emotional interaction	Examines perceived empathy in AI symptom checker applications
[16]	AI supports healthcare decision-making and increases user engagement	Data privacy concerns not specifically addressed	Investigates privacy concerns in symptom checker applications
[17]	Trust influences technology acceptance	Empathy and privacy generally examined separately	Integrates both variables in one model
[18]	Young adults actively adopt digital health technology	Limited focus on trust toward AI symptom checker applications	Focuses specifically on young adults

Table 1 indicates that previous studies have provided important insights regarding the adoption of AI in healthcare. However, emotional interaction through perceived empathy and concerns related to personal data privacy remain insufficiently explored in the context of AI symptom checker applications. The table also shows that prior studies tend to examine trust through separate perspectives, while limited studies integrate both emotional and privacy-related factors within one framework [19].

Therefore, this study addresses these gaps by examining how perceived empathy and data privacy concerns influence trust in AI symptom checker applications among young adults. This integrated perspective is expected to contribute to a broader understanding of behavioral acceptance toward AI-powered healthcare services.

2.6. Conceptual Framework

Based on the research gaps identified in previous studies, this study proposes a conceptual framework to examine the factors influencing trust and willingness to use AI symptom checker applications among young adults. The framework is developed to provide a more comprehensive understanding of how emotional and privacy-related perceptions shape users' acceptance of AI-powered healthcare technologies. As AI symptom checker applications become increasingly accessible and integrated into everyday health-seeking behaviors, understanding the determinants of user trust has become essential. Although these applications offer convenience and rapid access to health-related information, their effectiveness ultimately depends on whether users perceive them as trustworthy and are willing to rely on their recommendations [20].

The proposed model positions perceived empathy and data privacy concerns as key antecedents of trust. Perceived empathy reflects users' perceptions that the AI system communicates in a responsive, understandable, supportive, and reassuring manner. In healthcare interactions, empathy has traditionally been

regarded as an important component of effective communication because it helps individuals feel understood and supported when dealing with health-related concerns. Although AI systems do not possess genuine human emotions, users may still develop perceptions of empathy based on how information is presented and how the system responds to their needs. In contrast, data privacy concerns represent users' apprehensions regarding the collection, storage, security, and potential misuse of personal health information shared through the application. Given the sensitive nature of health-related data, privacy concerns may significantly influence users' confidence in AI healthcare technologies.

Trust is positioned as the central mechanism that connects users' perceptions of AI interaction with their behavioral intention to continue using the application. In the healthcare context, trust plays a particularly important role because users often depend on AI-generated recommendations to obtain preliminary health information before deciding whether to seek professional medical assistance. Users who perceive the application as empathetic and capable of protecting their personal information are more likely to develop confidence in its reliability and usefulness. Consequently, stronger trust is expected to increase users' willingness to use AI symptom checker applications for future health-related needs. By integrating perceived empathy, data privacy concerns, trust, and willingness to use within a single framework, this study aims to contribute to a more comprehensive understanding of behavioral acceptance toward AI-powered healthcare services among young adults.

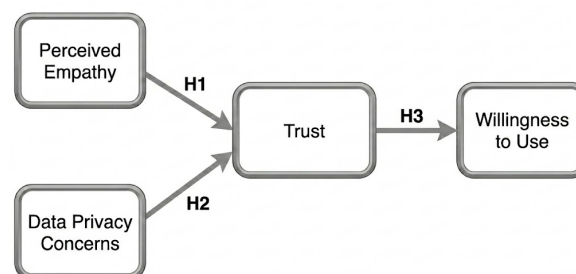


Figure 1. Conceptual Framework

Figure 1 illustrates the proposed relationships among the variables examined in this study. Perceived empathy is proposed to positively influence trust, indicating that users are more likely to trust AI symptom checker applications when the interaction feels supportive and attentive. In contrast, data privacy concerns are expected to negatively influence trust, as concerns regarding personal information security may reduce confidence in the application.

Furthermore, trust is proposed to positively influence willingness to use AI symptom checker applications. This indicates that stronger trust may increase users' intention to rely on the application for health-related guidance. Through this framework, the study integrates emotional and privacy-related perspectives to better explain behavioral acceptance of AI-powered healthcare technology among young adults.

3. METHODOLOGY

3.1. Research Design

This study employed a quantitative research approach to examine the relationships among perceived empathy, data privacy concerns, trust, and willingness to use AI symptom checker applications. A cross-sectional survey design was adopted because it enables the collection of data at a single point in time and facilitates statistical analysis of relationships among variables.

The study focused on young adults who are familiar with AI-powered healthcare technologies and have experience using AI symptom checker applications. Data were collected through a structured questionnaire and analyzed using multiple linear regression with the Statistical Package for the Social Sciences (SPSS).

3.2. Population and Sample

The target population consisted of young adults aged between 18 and 35 years who have experience using AI symptom checker applications or similar healthcare platforms incorporating AI-assisted symptom assessment features. A purposive sampling technique was employed to ensure that respondents possessed relevant experience with healthcare AI technologies. To be eligible for participation, respondents were required to be

within the specified age range, have prior experience using AI symptom checker applications, and voluntarily agree to participate in the study.

Considering the requirements of regression analysis and to ensure adequate statistical power, this study targeted a minimum sample size of 150 respondents. The selected sample was considered appropriate for examining the proposed relationships among perceived empathy, data privacy concerns, trust, and willingness to use AI symptom checker applications.

3.3. Instrument Development

Data were collected using a structured questionnaire measured on a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The measurement items were adapted from previous studies and modified to fit the context of AI symptom checker applications. Table 2 presents the measurement items used in this study.

Table 2. Measurement Items

Variable	Code	Item
Perceived Empathy	PE1	The AI application responds in an understanding manner.
	PE2	The AI application provides supportive responses.
	PE3	The AI application communicates health information empathetically.
	PE4	The AI application appears attentive to users' concerns.
Data Privacy Concerns	DP1	I am concerned about the security of my health information.
	DP2	I worry about unauthorized access to my health data.
	DP3	I am uncertain about how my health data are stored.
	DP4	I am concerned that my health information could be misused.
Trust	TR1	I trust the information provided by the application.
	TR2	I believe the application is reliable.
	TR3	I feel confident using the application.
	TR4	The application provides dependable recommendations.
Willingness to Use	WU1	I intend to continue using the application.
	WU2	I would use the application in the future.
	WU3	I am willing to rely on the application for initial health guidance.
	WU4	I would recommend the application to others.

Table 2 summarizes the measurement items employed in this study. The indicators were developed to reflect the multidimensional nature of users' perceptions toward AI symptom checker applications in healthcare settings. Perceived empathy was measured through users' evaluations of supportive and understanding AI interactions, while data privacy concerns captured apprehensions regarding the protection and management of personal health information. Trust was assessed based on respondents' confidence in the reliability and dependability of the application, whereas willingness to use reflected their intention to continue utilizing AI symptom checker technologies. Collectively, these measurement items provide a comprehensive framework for examining behavioral acceptance of AI-powered healthcare applications among young adults.

3.4. Data Collection Procedure

Data were collected through an online survey distributed via social media platforms and digital communities. Prior to participation, respondents were informed about the purpose of the study and assured that all responses would remain anonymous and confidential.

Participation was voluntary, and respondents were free to withdraw from the survey at any stage without penalty.

3.5. Data Analysis

Data analysis was conducted using SPSS. The analysis consisted of descriptive statistics, validity testing, reliability testing, and regression analysis. To test H1 and H2, multiple linear regression was employed to examine the influence of perceived empathy and data privacy concerns on trust. To test H3, simple linear regression was conducted to examine the influence of trust on willingness to use AI symptom checker applications.

For the first regression model, trust was specified as the dependent variable, while perceived empathy and data privacy concerns were specified as independent variables. The regression model is expressed as follows:

$$Z = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \varepsilon \quad (1)$$

where:

- Z = Trust
- X_1 = Perceived Empathy
- X_2 = Data Privacy Concerns
- β_0 = Constant
- β_1, β_2 = Regression coefficients
- ε = Error term

To test H3, a second regression model was conducted with willingness to use as the dependent variable and trust as the predictor variable. The model is expressed as follows:

$$Y = \beta_0 + \beta_1 Z + \varepsilon \quad (2)$$

where:

- Y = Willingness to Use
- Z = Trust
- β_0 = Constant
- β_1 = Regression coefficient
- ε = Error term

The validity criterion was determined using Pearson Product Moment correlation with a significance value below 0.05. Reliability was assessed using Cronbach's Alpha, with values above 0.70 indicating acceptable internal consistency. Hypotheses were accepted when the significance value (p-value) was less than 0.05.

4. RESULTS AND DISCUSSION

4.1. Respondent Profile

A total of 187 valid responses were collected and included in the final analysis. All respondents met the predetermined eligibility criteria, namely being young adults aged between 18 and 35 years and having prior experience using AI symptom checker applications or similar AI-powered healthcare platforms. The collected data were screened to ensure completeness and consistency prior to statistical analysis. Understanding respondent characteristics is important because demographic backgrounds may influence perceptions of AI-powered healthcare technologies and shape users' trust and willingness to use such applications. Therefore, descriptive statistics were conducted to provide an overview of the sample composition. The demographic characteristics examined in this study include gender, age, and frequency of AI healthcare application usage, which collectively provide insights into the respondents' familiarity and engagement with AI-driven healthcare services. The detailed profile of the respondents is presented in Table 3.

Table 3. Respondent Profile

Characteristic	Frequency	Percentage (%)
Male	79	42.2

Characteristic	Frequency	Percentage (%)
Female	108	57.8
18–22 years	72	38.5
23–27 years	68	36.4
28–35 years	47	25.1
Occasional Users	103	55.1
Frequent Users	84	44.9

Table 3 shows that female respondents represented the majority of participants (57.8%). Most respondents were between 18 and 27 years old, indicating that the sample primarily consisted of digitally active young adults. Furthermore, more than half of the respondents reported occasional use of AI healthcare applications, suggesting a moderate level of familiarity with AI-powered health technologies.

4.2. Validity and Reliability Test

Prior to hypothesis testing, validity and reliability analyses were conducted to evaluate the quality of the measurement instrument. The validity test was performed using Pearson Product Moment correlation, where items were considered valid when the significance value was below 0.05. The results indicated that all measurement items demonstrated significant correlations with their respective constructs, confirming satisfactory construct validity. Reliability was assessed using Cronbach's Alpha to evaluate the internal consistency of the measurement scales. Following the commonly accepted threshold, Cronbach's Alpha values greater than 0.70 indicate acceptable reliability. The results of the reliability analysis are presented in Table 4.

Table 4. Reliability Test Results

Variable	Cronbach's Alpha	Result
Perceived Empathy	0.872	Reliable
Data Privacy Concerns	0.845	Reliable
Trust	0.889	Reliable
Willingness to Use	0.861	Reliable

As shown in Table 4, all variables achieved Cronbach's Alpha values above the recommended threshold of 0.70, indicating satisfactory internal consistency and reliability. Therefore, the measurement instrument was considered suitable for subsequent statistical analyses.

4.3. Hypothesis Testing

To test H1 and H2, multiple linear regression analysis was conducted with Trust as the dependent variable. The results are presented in Table 5.

Table 5. Regression Results for Trust

Variable	β	t-value	Sig.
Perceived Empathy	0.514	8.432	0.000
Data Privacy Concerns	-0.271	-4.117	0.000
R^2		0.563	
Adjusted R^2		0.558	
F-value		118.274 (p < 0.001)	

Table 5 indicates that perceived empathy has a significant positive effect on trust ($\beta = 0.514$, $p < 0.001$), supporting H1. Conversely, data privacy concerns exhibit a significant negative effect on trust ($\beta = -0.271$, $p < 0.001$), supporting H2. The model explains approximately 56.3% of the variance in trust, suggesting substantial explanatory power. To test H3, a simple linear regression analysis was performed with Willingness to Use as the dependent variable and Trust as the predictor variable.

Table 6. Regression Results for Willingness to Use

Variable	β	t-value	Sig.
Trust	0.687	11.206	0.000
R^2		0.472	
Adjusted R^2		0.469	
F-value		125.574 ($p < 0.001$)	

As presented in Table 6, trust has a significant positive influence on willingness to use AI symptom checker applications ($\beta = 0.687$, $p < 0.001$). Therefore, H3 is supported. The model explains 47.2% of the variance in willingness to use.

4.4. Discussion

4.4.1. Perceived Empathy and Trust

The findings reveal that perceived empathy significantly enhances trust in AI symptom checker applications. This suggests that users do not solely evaluate healthcare AI systems based on technical performance but also consider the emotional quality of the interaction. When AI applications provide responses that appear supportive, attentive, and understanding, users are more likely to perceive the system as trustworthy. This finding supports the growing literature on empathetic AI, which argues that emotional interaction remains relevant even in technology-mediated healthcare environments. For young adults, who are accustomed to personalized digital experiences, empathetic communication may reduce uncertainty and increase confidence in AI-generated health recommendations.

4.4.2. Data Privacy Concerns and Trust

The results demonstrate that data privacy concerns negatively influence trust in AI symptom checker applications. Users who are worried about the security and management of their personal health information tend to exhibit lower levels of trust toward healthcare AI systems. Given the sensitive nature of health-related data, privacy concerns represent a critical challenge for developers and healthcare providers. The finding highlights the importance of transparent data governance, privacy protection mechanisms, and clear communication regarding data usage policies to foster trust among users.

4.4.3. Trust and Willingness to Use

The results further indicate that trust significantly increases willingness to use AI symptom checker applications. Trust appears to function as a key determinant of behavioral acceptance, suggesting that users are more willing to rely on AI healthcare technologies when they perceive them as reliable and dependable. This finding aligns with technology acceptance literature emphasizing trust as a central factor in shaping user intentions. In the context of healthcare AI, trust may be particularly important because users often depend on the information provided to make preliminary decisions regarding their health conditions. Therefore, strengthening trust through empathetic interaction and effective privacy protection may contribute to broader adoption of AI-powered healthcare services.

5. MANAGERIAL IMPLICATIONS

The findings of this study provide important implications for developers of AI symptom checker applications and healthcare technology providers. Since perceived empathy was found to significantly enhance trust, developers should prioritize the design of AI interactions that appear supportive, responsive, and attentive to users' health concerns. Beyond improving algorithmic accuracy, AI systems should incorporate empathetic communication strategies that help users feel understood and reassured during health-related interactions. Such human-centered design approaches may strengthen users' confidence in AI-generated recommendations and improve overall user experience.

The study also highlights the importance of addressing data privacy concerns in AI-powered healthcare applications. Healthcare organizations and technology providers should implement transparent data governance policies, clearly communicate how personal health information is collected and protected, and ensure compliance with relevant privacy regulations. Strengthening privacy protection mechanisms may reduce users' concerns and foster greater trust in AI healthcare technologies. By simultaneously enhancing empathetic interaction and privacy assurance, organizations can encourage broader adoption and sustained use of AI symptom checker applications among young adults.

6. CONCLUSION

This study examined the influence of perceived empathy and data privacy concerns on trust in AI symptom checker applications among young adults, as well as the effect of trust on willingness to use such technologies. The findings indicate that perceived empathy positively influences trust, while data privacy concerns negatively affect trust. Furthermore, trust was found to significantly increase users' willingness to use AI symptom checker applications. These results suggest that both emotional and privacy-related factors play important roles in shaping users' acceptance of AI-powered healthcare services.

The study contributes to the growing body of literature on AI adoption in healthcare by integrating perceived empathy and data privacy concerns within a single research framework. While previous studies have often examined these factors separately, the present research demonstrates that emotional interaction and privacy perceptions collectively influence trust formation in AI healthcare applications. The findings further emphasize the central role of trust as a mechanism linking users' perceptions to their behavioral intentions.

Despite its contributions, this study has several limitations. The research focused exclusively on young adults, which may limit the generalizability of the findings to other age groups. In addition, the cross-sectional design captures respondents' perceptions at a single point in time and may not fully reflect changes in user attitudes as AI technologies continue to evolve. Future studies are encouraged to examine additional factors influencing trust in healthcare AI, employ more diverse samples, and explore longitudinal approaches to better understand the dynamics of AI adoption in healthcare contexts.

7. DECLARATIONS

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7.2. Author Contributions

Conceptualization: SA; Methodology: LU; Software: DS; Validation: SA and LU; Formal Analysis: SR, NS and DS; Investigation: SA; Resources: LU; Data Curation: LU; Writing Original Draft Preparation: DS and SR; Writing Review & Editing: DS, SR and NS; Visualization: LU; All authors, SA, LU, DS, SR and NS, have read and agreed to the published version of the manuscript.

7.3. Data Availability Statement

The data presented in this study are available on request from the corresponding author.

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7.5. Declaration of Conflicting Interest

The authors declare that they have no conflicts of interest, known competing financial interests, or personal relationships that could have influenced the work reported in this paper.

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