



# Student attitudes toward AI: The influence of AI literacy and self-efficacy among allied health students

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## Abstract

In the 21st century of learning, Artificial Intelligence (AI) has already immersed itself into the process. AI in education is a new trend that students are still quite unaware of its potential and capacity as a tool for learning. This study investigated the attitude toward AI, AI literacy, and AI self-efficacy among allied health students from a higher education institution in Olongapo City, Philippines. A quantitative-correlation design was the research method employed by the study. A total of 324 conveniently chosen allied health participants took the online survey during the academic year of 2024-2025. The study also used a modified research instrument to gather data. The collected data underwent statistical analysis using Statistical Package for Social Sciences (SPSS) 23. Results show that the student attitude toward AI, the AI literacy, and the AI self-efficacy yielded a moderate mean score. At the same time, significant differences were observed for the student attitude toward AI (age, year level, and Use of AI) and AI self-efficacy (sex and use of AI). Additionally, there was a significant relationship between student attitude toward AI, AI literacy, and AI self-efficacy. Linear regression analysis confirmed that both AI literacy and AI self-efficacy predict the student attitude toward AI. The study concluded that students' attitudes toward AI can be predicted by AI literacy and AI self-efficacy among allied health students.

**Keywords:** *attitude, literacy, self-efficacy, Higher Education Institution, HEI*

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## 1. Introduction

The integration of artificial intelligence (AI) technologies in the healthcare field is becoming increasingly prevalent, offering promises of improved diagnostics, personalized treatment plans, and enhanced patient care. According to Ayed et al. (2025), AI integration in healthcare education presents a critical technological advancement that requires a careful analysis of student preparedness and acceptance. Most students in the medical field agreed that AI would play a vital role in the healthcare field (Alghamdi & Alashban, 2024). On the other hand, Habib et al. (2024) believed that AI would raise more ethical challenges in healthcare. It is also interesting to note that in a previous paper of Hoffman et al. (2024), they noted that most of their allied health participants had little to no knowledge about AI in the healthcare field. In the aspect of AI literacy, James and Maldonado-Molina (2025) expected that health education specialists must possess AI literacy as a minimum learning outcome and a level of competency that enables them to work effectively. Adegboye (2024) advised that, in order to enhance AI literacy, healthcare professionals must adopt strategies like the provision of opportunities for ongoing professional development in AI literacy.

Ali (2025) also highlighted that the integration of AI into medical education presents challenges, such as ethical considerations and skill atrophy due to the digital divide among educational institutions. To address some of these issues, van de Venter and Williams (2024) proposed an AI literacy framework focused on enhancing technical knowledge and understanding of AI and its use in clinical practice. Moreover, regarding AI self-efficacy, Li and Sung (2025) reported that interactive chatbot learning modules increased self-efficacy and demonstrated the effectiveness of digital tools in enhancing participants' confidence and competence in palliative care. In an experimental study conducted by Zhang and Rapport (2025) on the integration of AI in graduate education, significant differences were observed between pre- and post-course surveys, indicating improvements in students' confidence and AI literacy. Hobbick (2024) also noted that participants had a positive experience with ChatGPT and expressed their intention to continue using it for learning purposes. From the perspective of Bozkurt et al. (2025), the positive outcomes of AI fostered learning engagement, self-efficacy, and confidence among students.

By delving into the predictive power of AI literacy and self-efficacy on student attitudes towards AI, this research can provide valuable understandings into how educational interventions can be tailored to enhance allied health students' preparedness for an AI-driven

healthcare landscape. As Habib et al. (2024) stated, AI can still be taught at the undergraduate level. Understanding the factors that influence student perceptions of AI is essential for fostering a positive and constructive mindset towards these technologies, ultimately ensuring that allied health students are equipped to leverage the benefits of AI while navigating potential ethical, social, and professional challenges that may arise. A study by Abuadas and Albikawi (2025) provided evidence that positive attitude, digital literacy, and self-efficacy were significant predictors of behavioral intention to use AI. Kwak et al. (2022) also found that positive attitudes toward AI and self-efficacy influence behavioral intention to use AI.

As the study delves deeper into the literature, only a handful of papers provide information regarding the predictors of student attitudes toward AI. No literature has provided sufficient information on how AI literacy and AI self-efficacy play a role in predicting attitudes toward AI among allied health students. Building on this premise, the study aims to investigate the complex relationship among the three main variables: student attitudes toward AI, AI literacy, and AI self-efficacy. Moreover, by exploring these dynamics within the allied health education context, this study contributes to the broader dialogue on AI integration in healthcare education and practice. It not only sheds light on the specific needs and perspectives of allied health students but also offers implications for curriculum design, professional development initiatives, and policy considerations aimed at cultivating a workforce that is not only proficient in AI technologies but also ethically and critically engaged in their application within the healthcare domain.

The main objective of this study is to determine whether AI literacy and AI self-efficacy influence students' attitudes toward AI among allied health students. At the same time, it also investigates whether there are any differences in the perceptions of allied health students regarding AI literacy, AI self-efficacy, and attitudes toward AI when grouped according to their demographics. In essence, this research serves as a stepping stone toward a more comprehensive understanding of how to mitigate the misuse of AI in learning and related contexts, as well as AI's application and impact in the healthcare workplace for both professionals and students. This context will pave the way for informed strategies that empower future healthcare professionals to harness the transformative potential of artificial intelligence while upholding the core values of patient-centered care and professional ethics.

## 2. Literature Review

### *2.1. Student Attitudes toward AI*

Allied health students, as the future workforce of healthcare professionals, stand at the forefront of this technological revolution. Their attitudes towards AI not only shape their academic and professional trajectories but also influence the adoption and implementation of AI in healthcare settings. The varying attitudes toward AI are associated with awareness, usage, evaluation, and overall literacy scores among students (Sumengen et al., 2025). Amiri et al. (2024) also concluded that the positive attitude of students promises the acceptance of AI technology. Hamad et al. (2025), Yalcinkaya et al. (2024), and Wang et al. (2024) also found that students generally have positive attitudes toward AI, with perceived usefulness and ease of use. In the study of Lukic et al. (2023), they shared that students have a slightly positive attitude towards AI. In the systematic review findings of Sandanasamy et al. (2025), the average positive attitude of students towards AI was generally high. Baigi et al. (2023) also supported the idea that healthcare students had a positive and promising attitude towards AI.

### *2.2. AI Literacy of Allied Health Students*

AI literacy encompasses not just the knowledge of AI concepts and applications but also the understanding of its implications in healthcare practice. It is interesting to note that Kimiafar et al. (2023) found that AI literacy among professionals and students was very low, and other studies reported that the basic literacy of AI was acceptable. In the paper of Subaveerapandiyan et al. (2024), they revealed varying levels of AI literacy among students with a basic understanding of AI principles, implying that perceptions regarding AI's role in healthcare varied, with recognition of key benefits. Allen and Kendeou (2023) also pointed out that AI literacy standards need to be developed and integrated across academic areas. Students need to develop AI literacy to succeed in the workplace (Cardon et al., 2023). This development is essential to prepare future professionals in the healthcare field for their practice of their profession. A stakeholder-first approach also allows addressing audiences beyond the usual ones in the field of AI literacy, incorporating new content and methodologies depending on the needs of the respective clientele (Dominguez Figaredo & Stoyanovich, 2023).

### ***2.3. AI Self-efficacy of Allied Health Students***

AI self-efficacy pertains to students' beliefs in their ability to effectively utilize AI tools and technologies in their future roles as healthcare professionals. Derakhshanian et al. (2024) claimed that students' interest and willingness to learn about AI were favorable, and a positive relationship between attitudes toward AI, AI utilization, and intention to use AI. At the same time, a strong correlation exists between AI attitudes and self-efficacy, and reasoning competency among students (Atalla et al., 2025). Varol (2025) mentioned that the high self-efficacy level of students is associated with lower AI anxiety. In their paper, Wang and Chuang (2023) believed that understanding a user's behavior towards the advancement of AI technology is critical; thus, they developed a scale that would address such a concern. Additionally, AI self-efficacy can enhance AI learning anxiety when an individual is motivated to learn (Chen et al., 2025). In the study of Bahari et al. (2025), they found associations in the AI perceptions, self-efficacy, and psychological distress of nursing students.

## **3. Methodology**

### ***3.1. Research Design***

This paper involved a descriptive-correlation research design, a method that describes a particular phenomenon or variable and simultaneously examines the existence of any underlying relationship between the variables involved in the study. The current research intends to investigate AI literacy, AI self-efficacy, and student attitude toward AI among allied health students and explore the relationships among these variables. Therefore, the descriptive-correlation research design is appropriate for the investigation.

### ***3.2. Participants of the Study***

The population of this research was students from the College of Allied Health Studies from a local higher education institution located in Olongapo City, Philippines. Three hundred twenty-four (324) students participated voluntarily in the online survey administered during the second semester of the academic year of 2024-2025. The data gathering started in September and continued up to October 2024. To be part of the research, the following inclusion criteria were considered: a) bona fide student, allied health student of the participating college, b) regular student, c) currently enrolled during the data gathering period, and d) interested in participating in the online survey. However, those who were ineligible

include: a) students from other colleges, b) irregular students, c) not enrolled during the time of gathering data, and d) not interested in joining the online survey.

Table 1 illustrates the demographic characteristics of the participants. The majority of the students were aged between 21 and 25 years, constituting 75.9% of the sample, followed by individuals under 20 years old at 19.4%. Only a small percentage of respondents were aged 26–30 years (2.2%) or over 31 years (2.5%). In terms of gender distribution, the study included 73.1% females and 26.9% males.

**Table 1**

*Demographic characteristics of the participants*

| <b>Profile</b>         | <b>Frequency</b> | <b>Percentage</b> |
|------------------------|------------------|-------------------|
| <b>Age</b>             |                  |                   |
| Less than 20 years old | 246              | 75.9              |
| 21-25 years old        | 63               | 19.4              |
| 26-30 years old        | 7                | 2.2               |
| More than 31 years old | 8                | 2.5               |
| <b>Sex</b>             |                  |                   |
| Female                 | 237              | 73.1              |
| Male                   | 63               | 26.9              |
| <b>Year Level</b>      |                  |                   |
| First Year             | 154              | 47.5              |
| Second year            | 90               | 27.8              |
| Third Year             | 69               | 21.3              |
| Fourth                 | 11               | 3.4               |
| <b>Use of AI</b>       |                  |                   |
| No                     | 53               | 16.4              |
| Yes                    | 271              | 83.6              |

*Note: N= 324*

Regarding academic progression, the respondents were distributed across different year levels, with the highest percentage in the first year (47.5%), followed by the second year (27.8%), third year (21.3%), and fourth year (3.4%). Notably, a significant majority of respondents (83.6%) reported using AI, while a smaller proportion (16.4%) indicated that they did not use AI.

### ***3.3. Instrumentation and Data Gathering Process***

In the process of gathering data, this research employed two standardized instruments for the investigation, which were later modified to capture the main objectives of the study. The first one came from the survey of Suh and Ahn (2022), wherein they developed and validated a scale measuring student attitude toward AI, also known as Student Attitudes toward AI (SATAI). The final scale contained three primary variables: behavioral, cognitive, and affective components, including 26 items. The construct reliability of the scale ranges from .907 to .944. The second instrument came from the paper of Carolus et al. (2023), where they developed a meta-AI literacy scale. The proponents considered two important domains in their study: AI literacy and AI self-efficacy. AI literacy has 19 items, while AI self-efficacy contains six items. The Cronbach reliability result ranged from .70 to .90.

Before data gathering, the modified instrument underwent a Cronbach's Alpha test to determine its reliability for the research. Based on the test, the following coefficients were obtained: for student attitude towards AI, the test generated .807. For the AI literacy, the test garnered .790, and for the AI self-efficacy, the test produced .795. Also, the overall coefficient was .855. All of the obtained coefficients were higher than the benchmark score of .70 and generally interpreted as reliable.

### ***3.4. Data Analysis***

After gathering the necessary data for the research, the researchers subjected them to descriptive and inferential statistics. The Statistical Package for Social Sciences (SPSS) version 23 was employed in the statistical treatment, especially in the test of differences (t-test and Analysis of Variance) and test of relationships (Pearson-r and Linear Regression). The basis for null hypothesis rejection is at the .05 alpha significance level. On the other hand, Microsoft Excel (MS Excel) was used to tabulate and tally the results of the online survey, including descriptive measures such as frequency, percentage, mean, and standard deviation.

### ***3.5. Research Ethics***

Preceding to data gathering, the researchers made sure to observe the standard ethical protocol for the participants. Informed consent was first introduced, indicating that they had read all the important matters and the necessary information. The participants were also informed that the online survey is purely voluntary and that no harm would be imposed if they

choose not to participate. The researchers also observed strict Data Privacy measures and confidentiality as prescribed by the college.

#### 4. Findings

The main objective of this research is to assess the AI literacy, AI self-efficacy, and student attitudes toward AI among the allied health students. It also dealt with identifying variance among the three variables when grouped according to the participants' demographics and relationships, more specifically, the predictor of student attitude toward AI.

**Table 2**

*Mean, standard deviation, and Cronbach alpha results*

| <b>Variables</b>           | <b>Mean</b> | <b>SD</b> | <b><math>\alpha</math> Cronbach</b> |
|----------------------------|-------------|-----------|-------------------------------------|
| Student Attitude Toward AI | 2.96        | 0.665     | .807                                |
| AI Literacy                | 3.00        | 0.671     | .790                                |
| AI Self-Efficacy           | 2.96        | 0.760     | .795                                |

Table 2 presents the mean, standard deviation (SD), and Cronbach's alpha results for three key variables of the study. The mean scores indicate the average values for each variable, with Student Attitude Toward AI scoring 2.96 (SD= 0.665), AI Literacy scoring 3.00 (SD= 0.671), and AI Self-Efficacy scoring 2.96 (SD= 0.760). The standard deviation values also suggest the degree of dispersion of individual responses from the average score for each variable.

Cronbach's alpha coefficients are a measure of internal consistency reliability. The results indicate strong internal consistency for the variables, with Student Attitude Toward AI scoring .807, AI Literacy scoring .790, and AI Self-Efficacy scoring .795. These high alpha values suggest that the items within each variable are reliable measures and consistently reflect the underlying constructs they aim to assess.

Table 3 presents the test results for differences in Student Attitude Toward AI, AI Literacy, and AI Self-Efficacy across various demographic variables, namely Age, Sex, Year Level, and Use of AI.

For Student Attitude Toward AI, the analysis revealed statistically significant differences based on Year Level [ $F(3, 320) = 3.173, p = .024$ ] and Use of AI [ $F(3, 320) = 2.848, p = .038$ ]. Specifically, students in different academic years and those using AI

demonstrated varying attitudes toward artificial intelligence. The t-tests further indicated significant differences in Student Attitude Toward AI based on Use of AI [ $t(322) = -2.814$ ,  $p = .005$ ].

**Table 3**

*Test of differences for the student attitudes, AI literacy, and AI self-efficacy*

| Variables                  | Age                                 | Sex                               | Year Level                          | Use of AI                         |
|----------------------------|-------------------------------------|-----------------------------------|-------------------------------------|-----------------------------------|
| Student Attitude Toward AI | $F(3, 320) = 2.848^*$<br>$p = .038$ | $t(322) = -1.341$<br>$p = .181$   | $F(3, 320) = 3.173^*$<br>$p = .024$ | $t(322) = -2.814^*$<br>$p = .005$ |
| AI Literacy                | $F(3, 320) = 3.699$<br>$p = .012$   | $t(322) = -1.766$<br>$p = .078$   | $F(3, 320) = 2.047$<br>$p = .107$   | $t(322) = -2.722$<br>$p = .007$   |
| AI Self-Efficacy           | $F(3, 320) = 0.353$<br>$p = .787$   | $t(322) = -2.513^*$<br>$p = .012$ | $F(3, 320) = 2.374$<br>$p = .070$   | $t(322) = -4.130^*$<br>$p = .000$ |

*Note:* \*  $p < .05$

In terms of AI Literacy, the results showed a significant difference based on Use of AI [ $F(3, 320) = 3.699$ ,  $p = .012$ ], highlighting varying levels of AI literacy among students using AI compared to those who do not. Additionally, the t-test indicated a significant difference in AI Literacy based on Use of AI [ $t(322) = -2.722$ ,  $p = .007$ ].

For AI Self-Efficacy, significant differences were found based on age [ $t(322) = -2.513$ ,  $p = .012$ ] and Use of AI [ $t(322) = -4.130$ ,  $p = .000$ ], indicating that age and the utilization of AI influenced self-efficacy perceptions regarding artificial intelligence.

Overall, the results suggest that demographic factors such as Year Level, Use of AI, and Age have an impact on student attitudes, AI literacy, and self-efficacy regarding artificial intelligence, emphasizing the importance of considering these variables in educational interventions and program development.

**Table 4**

*Correlation matrix between student attitudes, AI literacy, and AI self-efficacy*

| Variables                  | 1 | 2     | 3     |
|----------------------------|---|-------|-------|
| Student Attitude Toward AI | 1 | .659* | .660* |
| AI Literacy                |   | .000  | .682* |
| AI Self-Efficacy           |   |       | .000  |
|                            |   |       | 1     |

*Note:* \*  $p < .05$

Table 4 displays the correlation matrix between Student Attitude Toward AI, AI Literacy, and AI Self-Efficacy. The correlation coefficients and their associated p-values are provided in the lower half of the table.

The correlation analysis reveals strong positive correlations among the variables. Specifically, Student Attitude Toward AI is highly positively correlated with both AI Literacy ( $r = .659$ ,  $p < .001$ ) and AI Self-Efficacy ( $r = .660$ ,  $p < .001$ ). These results suggest that individuals with a more positive attitude toward artificial intelligence tend to have higher levels of AI literacy and self-efficacy. Similarly, a strong positive correlation is observed between AI Literacy and AI Self-Efficacy ( $r = .682$ ,  $p < .001$ ), indicating that individuals with greater AI literacy also tend to exhibit higher levels of self-efficacy in utilizing artificial intelligence technologies.

Overall, the findings from the correlation matrix highlight significant relationships among Student Attitude Toward AI, AI Literacy, and AI Self-Efficacy. These results suggest that attitudes towards AI are closely linked to individuals' knowledge of AI and their confidence in using AI tools effectively. Understanding these interrelations is crucial for designing effective educational programs and interventions aimed at enhancing student perceptions and competencies in the realm of artificial intelligence.

**Table 5**

*Linear regression for the predictor of student attitudes toward AI*

| Model            | B    | Std. Error | Beta | t     | Sig  |
|------------------|------|------------|------|-------|------|
| Constant         | .789 | .122       |      | 6.475 | .000 |
| AI Literacy      | .387 | .052       | .392 | 7.381 | .000 |
| AI Self-Efficacy | .343 | .046       | .392 | 7.398 | .000 |

*Note:*  $F(2, 321) = 171.789$ ,  $p = .000$ ;  $R^2 = .517$

Table 5 presents the results of the linear regression analysis for predicting Student Attitudes toward AI based on AI Literacy and AI Self-Efficacy as predictor variables.

The regression model indicates that both AI Literacy and AI Self-Efficacy significantly predict Student Attitudes toward AI. The regression coefficients (B) show that for every one-unit increase in AI Literacy, there is an estimated increase of .387 units in Student Attitudes toward AI. Similarly, for every one-unit increase in AI Self-Efficacy, there is an estimated increase of .343 units in Student Attitudes toward AI.

The standardized coefficients (Beta) reveal that both AI Literacy and AI Self-Efficacy have a similar impact on Student Attitudes toward AI, with Beta values of .392 for each predictor. The statistical significance of the predictors is confirmed by the *t*-values, with both AI Literacy ( $t = 7.381$ ) and AI Self-Efficacy ( $t = 7.398$ ) showing significant effects on Student Attitudes toward AI ( $p = .000$ ).

The overall model fit is significant, as indicated by the *F*-value [ $F(2, 321) = 171.789$ ,  $p = .000$ ], suggesting that the combined influence of AI Literacy and AI Self-Efficacy on Students Attitude toward AI is significant. The R-squared value of .517 indicates that approximately 51.7% of the variance in Student Attitude toward AI can be explained by the model.

The results of the linear regression analysis demonstrate that both AI Literacy and AI Self-Efficacy are strong predictors of Student Attitudes toward AI, highlighting the importance of these factors in shaping attitudes towards artificial intelligence among students.

## 5. Discussion

The main objective of this study is to determine the student attitudes toward AI among allied health students. It also analyzes the differences in students' perceptions in terms of attitude, literacy, and self-efficacy in AI. The results of the study yielded some interesting findings. Regarding the three variables, first, for student attitudes toward AI, the current study found that most participants had a moderate level of perception, as indicated by their mean score. In contrast, a previous study by Hamad et al. (2025) reported a positive attitude toward AI among their participants. Similarly, Lukic et al. (2023) found that their participants had a slightly positive attitude toward AI. Meanwhile, Sandanasamy et al. (2025) claimed that students' average positive attitude toward AI was generally high. The current study contrasts with these previous findings in the literature, thereby providing an opportunity for future researchers to explore the context of student attitudes toward AI in greater depth.

Regarding AI literacy, the current study revealed a moderate level of literacy, as reflected in the overall mean score. This finding somewhat contradicted the results of Ali and Mughari (2024), who reported strong AI literacy among medical students, although they struggled with understanding AI errors. In contrast, the study by Kimiafar et al. (2023) found that AI literacy among students was very low, which aligns with the findings of the current

investigation. Overall, the results of this study present conflicting generalizations on the topic, providing an avenue for future research.

For AI self-efficacy, similar to the other two variables, participants also demonstrated a moderate score. In contrast, Varol (2025) reported high self-efficacy levels among participants, and Derakhshanian et al. (2024) found that students' interest and willingness to learn about AI were favorable, which contradicts the current results. These findings create another opportunity for future researchers to investigate. It is noteworthy that the current study offers a new perspective on the topic under investigation. In general, the findings contrast with previous literature, and the study cannot fully identify the factors contributing to these discrepancies. Therefore, further investigation is warranted in the future.

Inferential statistics revealed significant differences in students' attitudes toward AI in terms of age, year level, and use of AI. This finding contradicted the study by Migdadi et al. (2024), which found no significant differences in nursing students' attitudes toward AI based on gender or year level. However, Lukic et al. (2023) and Laupichler et al. (2024) reported that male students scored slightly higher than female students in attitudes toward AI, which contrasts with the results of the current study. This interesting finding establishes a new perspective regarding students' attitudes toward AI, particularly when grouped by factors such as age, year level, and AI usage, and provides an opportunity for future researchers to examine whether these findings are consistent across different contexts.

Regarding AI self-efficacy, significant differences were observed in terms of sex and AI usage. This result aligns with Bahari et al. (2025), who found that participants who used AI displayed significantly different levels of self-efficacy. However, Kwak et al. (2022) reported that self-efficacy scores were high, especially among third- and fourth-year students, which contradicts the current findings. This analysis suggests that AI self-efficacy presents another conflicting pattern across demographic profiles and offers a pathway for future research exploration. In contrast, AI literacy did not yield any significant variance in perceptions among the allied health participants. This result implies that participants' perceptions of AI literacy were not affected by demographic factors. This finding conflicts with Altmpulluk and Alptekin (2025), who reported significant differences in AI literacy based on the frequency of using AI tools. Similarly, Laupichler et al. (2024) found significant gender differences among medical students, with female students rating their AI literacy lower than their male counterparts.

Therefore, the current finding deviates from previous studies, creating another avenue for future research.

Before establishing the determinants of the study, a correlation analysis was performed, revealing that both AI literacy and AI self-efficacy were positively and significantly correlated with students' attitudes toward AI. This result aligns with Laupichler et al. (2024), who also reported a correlation between AI literacy and attitudes toward AI among medical students. To examine whether AI literacy and AI self-efficacy influence allied health students, a linear regression analysis was conducted. The analysis showed that both AI literacy and AI self-efficacy significantly influenced students' attitudes toward AI. Interestingly, the study by El-Sayed et al. (2025), which highlighted the direct influence of AI competence self-efficacy on nurses' behavior, supports the current findings. Additionally, Wood et al. (2021) concluded that medical students expressed strong interest in AI technology and its applications in healthcare and medicine.

## **6. Conclusion**

The current study determined some interesting findings to share with the research community. In terms of attitude, literacy, and self-efficacy on AI, the study produced a moderate score from the allied health students. Statistical differences were observed in the attitude toward AI and AI self-efficacy when the allied health participants were grouped according to their demographics. Also, a direct moderate correlation was observed between student attitude toward AI, AI literacy, and AI self-efficacy. The linear regression revealed that AI literacy and AI self-efficacy influence student attitude toward AI among allied health participants.

Based on the results, the study highlights the importance of incorporating AI literacy and self-efficacy training into the curriculum for allied health students to enhance their attitudes and competencies toward AI technologies. It also recommends designing targeted interventions based on the identified statistical differences in attitude and self-efficacy toward AI among different demographic groups. Collaboration between allied health education programs and AI experts should be encouraged to develop interdisciplinary initiatives that promote AI literacy and self-efficacy among students. Additionally, continuous professional development programs for allied health professionals are essential to keep pace with evolving technologies like AI, fostering a culture of lifelong learning. Finally, the study suggests

exploring the impact of AI literacy and self-efficacy on actual clinical practice and patient outcomes to better understand the practical implications of these competencies.

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### **Institutional Review Board Statement**

This study was conducted in accordance with the ethical guidelines set by the Gordon College Research Ethics Review Unit. The conduct of this study has been approved and given relative clearance(s) by the Gordon College Research Ethics Review Unit.

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