Reliance on Artificial Intelligence and Emotional Intelligence Among Students Nurses in a Private College in Iloilo

Original Research Article

ABSTRACT

The growing integration of artificial intelligence (AI) in education has prompted concerns regarding its potential influence on emotional intelligence (EI), particularly among student nurses whose professions require empathy and interpersonal competence. This study sought to examine the relationship between reliance on AI tools and the emotional intelligence of student nurses. Employing a descriptive-correlational design, the study involved a total of 305 student nurses from second-fourth year student nurses enrolled in a private college in Iloilo during the second semester of academic year 2025-2026. Data were collected using an adapted questionnaire measuring AI reliance in terms of availability, functionality, and complexity, and EI across five domains: self-awareness, self-regulation, motivation, social skills, and empathy. The Shapiro-Wilk test indicated that the data was not normally distributed (p = .004); therefore, Spearman's rho correlation analysis was employed. Ethical clearance was obtained prior to data collection. The findings revealed that overall reliance on artificial intelligence among student nurses was an average level *(M=2.68),* whereas the overall level of emotional intelligence was high *(M = 3.11)*, with empathy demonstrating the highest mean score *(M = 3.25).* Spearman's rho analysis indicated a very weak yet statistically significant positive relationship between overall AI reliance and emotional intelligence *(rs = 0.164, p = 0.004)*. Furthermore, AI availability exhibits weak but significant positive correlation with all domains of emotional intelligence, with the most substantial association identified in empathy *(rs = .252, P < .001).* The study concludes that AI reliance presents both beneficial and adverse implications for student nurses' emotional intelligence. It underscores the importance of integrating curricula and support systems that foster technological competence alongside humanistic values.

Keywords: *artificial intelligence, AI reliance, emotional intelligence, nursing education, technological competence*

1. INTRODUCTION

Artificial intelligence (AI) is a collection of tools that allows a machine to perform tasks that have levels of capability. The study of AI is the study of how to make computers perform something that humans would do. Examples of such high-level tasks are learning, problem-solving, perception, and language use (Abassi et al., 2024). Emotional intelligence refers to the capacity to identify, manage, and navigate one's own emotions and interpersonal interactions (Frottingham, 2024). Higher EI among student nurses has been associated with clinical competence, stress resilience, leadership potential, and enhanced patient safety outcomes (Foster, 2017). Despite its educational advantages, extensive engagement with AI and digital tools has been associated with adverse psychological outcomes among students, including reduced emotional regulation, heightened anxiety, impaired face-to-face communication, and a decline in social connectedness (Nakshine et al., 2022). Although AI facilitates content mastery and rapid feedback, it remains limited in its ability to replicate the empathetic, context-sensitive interactions characteristic of human educators—interactions fundamental to fostering critical thinking, reflection, and interpersonal development (Holmes & Tulomi, 2022). AI has transformed modern education by increasing college students' motivation to learn, introducing a wider range of teaching methods, and raising academic achievement through personalized experiences and immediate feedback. Additionally, the proliferation of smart technology supports more independent learning and better use of online resources for collaboration, establishing AI as a vital component of education today (Zhang, 2024). As these technologies become more accessible, students particularly in demanding academic programs such as nursing are increasingly relying on AI to support their learning process.

Despite the increasing discussion surrounding AI in the field of education, empirical evidence remains scarce regarding how engagement with AI influences the development of EI particularly among student nurses in the Philippines higher education institutions. This knowledge gap is heightened in regions like Iloilo City, where there is an increasing integration of AI in the academic settings. Understanding this emerging dynamic is crucial to informing policies, designing curricula, providing support services and sustainable models of technology integration. To address these concerns, there is a need to consider the relationship that exists between the use of artificial intelligence and the emotional intelligence of the nursing students. Through such an examination, there will be an understanding of whether the ease of access and use of such technology is likely to enhance or limit the development of emotional intelligence. The results obtained from such an examination could provide the foundation for the development of an approach that ensures the integration of innovation and the values that are essential in the field of nursing. Existing literature highlights the overdependence on AI solutions for assessments and feedback, as a result, deprive students of many opportunities for dialogue and reflective practice, both of which are necessary for their high-order thinking skills to develop (Facione, 2020). Conversely, research also suggests that excessive engagement with digital technologies may contribute to reduced social interaction, emotional regulation challenges, and diminished face-to-face communication among students. For prospective nurses, diminished interpersonal engagement may hinder their growth of compassion and therapeutic communication skills– attributes that cannot be replicated by artificial technologies (Chan & Hu, 2023). Thereby, finding the right balance between using AI advancements and keeping humanistic nursing principles is both moral and professional necessity. Through an examination of the relationship between artificial intelligence dependency and emotional intelligence among student nurses, the present research aims to contribute to the existing body of knowledge on the integration of technology in nursing education, as well as address the dearth of existing research on the potential impact of artificial intelligence integration in nursing education on emotional development.

2. METHODOLOGY

2.1 Research Design and Respondents

This study employed a descriptive-correlational research design to determine the level of reliance on artificial intelligence (AI) and emotional intelligence among student nurses and to examine the relationship between these variables. The study was conducted in a college of nursing in one of the private colleges in Iloilo, academic year 2025-2026. A total of 305 respondents from second

year to fourth year were selected using a stratified random sampling technique to ensure proportional representation across year levels.

2.2 Research Instrument

Data were collected using a structured questionnaire consisting of three sections:

(1) Demographic Data: This part identified the respondents' sex, year level, and a preliminary question if the chosen respondent used artificial technology tools.

(2) Usage of Artificial Intelligence (AI) in academic settings: This section was adapted from a study of Jaysone Christopher Bancoro (2024). The choices were modified from a five to a four-point scale to avoid neutrality and encourage more decisive responses.

(3) Emotional Intelligence adapted from Boston EI Questionnaire (2010), based on the five dimension model of Emotional Intelligence developed by Daniel Goleman (1995). It included five dimensions: self-awareness, self-regulation, motivation, social skills and empathy, having 25 questions self-rated in a 4-point scale. The response options were modified from letter-based categories to numerical values to allow for quantitative analysis and computation of scores.

2.3 Data Collection

The questionnaire was distributed electronically through Google Forms, and respondents were contacted via online communication platforms such as Messenger. Participation was voluntary, and informed consent was obtained before respondents completed the questionnaire.

2.4 Statistical Analysis

In order to analyze the data, a descriptive and correlational analysis was employed in this study (Polit & Beck, 2017). The collected data were encoded and analyzed using Jamovi (Version 2.6, 2024). A coding manual was prepared to ensure consistency and minimize errors in data entry. Study variables were coded as follows: sex (1= male, 2= female), year level (1= level 2, 2= level 3, 3= level 4), and reliance on AI (1= never, 2= sometimes, 3= often, 4= always). Descriptive statistics, including frequencies, percentages, mean and standard deviation, were used to summarize respondents' demographic characteristics and assess their level of reliance on AI and emotional intelligence.

Normality of the data was assessed using the Shapiro-Wilk, Kolmogorov-Smirnov, and Anderson-Darling test (Razali & Wah, 2011; Gupta, 2022). Results showed mixed normality findings, therefore Spearman's rho correlation was utilized to examine the relationship between reliance on AI (availability, functionality, and complexity) and emotional intelligence (self-awareness, self-regulation, motivation, social skills, and empathy). Spearman's rho is appropriate for ordinal or non-normally distributed data (Statistics Solutions, 2025). The strength of the correlation was interpreted as very weak (0.00-0.19), weak (0.20-0.39), moderate (0.40-0.69), strong (0.70-0.89), and very strong (0.90-1.00). Pearson's r was also considered when variables were treated as interval data and normally distributed (SurveyMonkey, 2021).

3. RESULTS AND DISCUSSION

3.1 Profile of Respondents

The demographic characteristics of the respondents are presented in **(Table 1)**. A total of 305 respondents participated in the study (100%). Most of the respondents were female nursing students, with the majority enrolled in the fourth year of their program. The findings indicate that

artificial intelligence is widely integrated into the academic activities of student nurses, particularly in tasks requiring writing assistance, research support, and information retrieval. The preference for certain AI tools suggests that students are inclined toward platforms that offer efficiency, accessibility, and interactive features that enhance learning experiences. The predominance of female respondents reflects the typical gender distribution in nursing education, which may influence patterns of technology adoption in academic settings. Additionally, the higher proportion of senior students suggests increased academic and clinical responsibilities, which may contribute to greater reliance on AI tools to manage workload and improve productivity. The variation in AI tool usage further implies differences in perceived usefulness and functionality, highlighting the importance of aligning technological tools with students' academic needs. These findings support existing literature that emphasizes the growing role of artificial intelligence as a regular component of students' academic routines and its contribution to improved learning outcomes (Attewell, 2025

Table 1. Profile of Respondents

Classification	N	%
Total	305	100.0
Sex		
Male	64	20.98
Female	241	79.01
Year Level		
2nd year	106	34.75
3rd year	91	29.84
4th year	108	35.41
AI Tools		
ChatGPT	276	42.92
Gemini AI	139	21.62
Quiilbot	170	26.44
Meta AI	43	6.69
Blackbox AI -	11	1.71
Others	4	0.62

3.2 Reliance on Artificial Intelligence in terms of Availability, Functionality and Complexity

The level of reliance on artificial intelligence among student nurses is presented in **(Table 2)**. The overall mean score was 2.68, indicating an average or moderate level of reliance. In terms of dimensions, availability had the highest mean followed by functionality and complexity. The highest-rated items included the ability to use AI tools across devices and to simplify difficult concepts , while the lowest involved using AI when experiencing low academic performance and engaging in tutorial-based learning.

Availability. The level of reliance on artificial intelligence in terms of availability is presented in **(Table 2)**, with an overall mean of 2.93, indicating a moderate level. The highest mean was

observed in the use of AI tools across different devices, while the lowest was in using AI for any type of requirement. These findings suggest that accessibility and convenience significantly influence AI usage among student nurses, allowing integration into daily academic tasks. This supports studies indicating that ease of access promotes frequent use of AI tools in education (Vieru & Petrea, 2025; Kundu & Bej, 2025)

Functionality. In terms of functionality, the overall mean was 2.59, reflecting moderate reliance. The highest mean was in using AI when outputs are perceived as inadequate, while the lowest was in using AI when encountering low or failing grades. This indicates that students primarily use AI to enhance the quality of their academic work rather than as a response to poor performance. Such patterns suggest responsible and supplementary use of AI, consistent with studies showing that AI supports productivity while maintaining independent learning and critical thinking (Elzerman, 2025; Lalwani et al., 2025).

Complexity. For complexity, the overall mean was 2.53, also indicating moderate reliance. The highest mean was in using AI to simplify difficult concepts , while the lowest was in watching tutorial videos to maximize AI usage.This aligns with research indicating that while AI enhances comprehension and motivation, insufficient exploration of its full capabilities may limit its overall effectiveness in learning (Wang, 2024; Lalwani et al., 2025).

Table 2. Reliance on Emotional Intelligence (n= 305)

	Mean
Availability	
I can use AI tools on any type of device (e.g., smartphone, laptop, tablet, etc.).	3.09
I can use AI tools anytime.	3.02
I use AI tools because they are accessible.	2.97
I can easily access and use AI tools without struggling.	2.92
I can use AI tools for any type of requirement.	2.64
Overall Availability	2.93
Functionality	
I use AI tools whenever I feel my output is lacking or inadequate.	2.76
I use AI tools because it makes my academic life easier.	2.69
I use AI tools to finish my requirements quicker and more efficiently.	2.64
I use AI tools in supporting my initial draft of my academic requirements.	2.62
I use AI tools whenever I encounter a low or failing grade in my submission.	2.26
Overall Functionality	Mean 2.59
Complexity	
I use AI tools to simplify terms and concepts that I have a hard time understanding.	2.96
AI tools are easy to navigate.	2.94
I use AI tools to guide or assist me when I encounter academic difficulties.	2.75
I customized the functions and settings to tailor AI tools based on my academic needs.	2.11
I watched tutorial videos on how I can maximize AI usage.	1.87
Overall Complexity	2.53
Overall Mean	2.68

3.3 Emotional Intelligence

The emotional intelligence of student nurses demonstrates high levels across all domains, including self-awareness, self-regulation, motivation, social skills, and empathy **(Table 3).**

Self-Awareness. Respondents showed strong self-awareness, demonstrating the ability to recognize their emotions and behaviors, including awareness of defensiveness and thought patterns. This foundation supports personal growth and effective decision-making, consistent with studies emphasizing self-awareness as a core element of emotional intelligence (Thaintheerasombat & Chookhampaeng, 2022; Majolo et al., 2023).

Self-Regulation. Participants exhibited high but slightly lower self-regulation compared to other domains. They were able to manage emotions through strategies like self-talk, though

maintaining focus under anxiety was more challenging. This reflects research noting that self-regulation is often the most difficult component of emotional intelligence to sustain despite its importance in professional and academic settings (Iau & Verhaegen, 2025; Laulie et al., 2023).

Motivation. Respondents demonstrated strong motivation, showing persistence, adaptability, and willingness to change ineffective methods. This internal drive supports resilience, task completion, and goal-oriented behavior in academic and clinical contexts, aligning with prior studies linking emotional intelligence to higher learning motivation (Fian & Roqib, 2025; Abasimi et al., 2025).

Social Skills. Participants reported competence in social interactions, including communication, teamwork, and empathy toward others' feelings. These skills facilitate positive relationships and conflict resolution, supporting research highlighting social skills as a critical component of emotional intelligence and professional effectiveness (Trigueros et al., 2020; Mitchell, 2020).

Empathy. Empathy was the strongest domain, with respondents showing the ability to understand and respond to others' emotions, although some difficulty in expressing personal emotions was noted. High empathy contributes to effective interpersonal relationships, patient care, and emotional intelligence overall, consistent with studies identifying empathy as a key predictor of professional competence in nursing (Salameh-Ayanian et al., 2025; Hajibabaee et al., 2018).

TABLE 3. Emotional Intelligence

Items	Mean
Self-awareness	
Do you know when you are becoming defensive?	3.35
How quickly do you realize you are starting to lose your temper?	3.21
Can you tell when your emotions are affecting your performance?	3.15
Can you tell when your mood is changing?	3.08
How soon do you realize that your thoughts are turning negative?	3.01
Overall Self-awareness	Mean 3.16
Self-regulation	
Do you engage in self-talk to vent feelings of anger or anxiety?	3.07
Do you remain cool in the face of others' anger or aggression?	2.98
Do you just get on with things when you are angry?	2.81
Can you relax when you are under pressure?	2.65
How well can you concentrate when you are feeling anxious?	2.53
Overall Self-regulation	Mean 2.81
Motivation	
How willingly do you change the way you do things when current methods are not working?	3.25
Can you kick start yourself into action when appropriate?	3.19
Do you bounce back quickly after a setback	3.14
Do you deliver on your promises?	3.10
Are you able to lift your energy level to tackle and complete boring tasks?	3.06

Overall Motivation	Mean 3.15
Social skills	
Are you able to demonstrate empathy with others' feelings?	3.47
Do you actively seek ways of resolving conflict?	3.25
To what extent do you influence others about the way things are done?	3.24
How willing are you to act as a spokesperson for others?	3.02
To what extent do you influence others about the way things are done?	3.01
Overall Social skills	Mean 3.20
Empathy	
Can you sense when others are feeling angry or anxious and respond appropriately?	3.46
Do you find yourself able to raise morale and make others feel good?	3.38
How freely do you offer help and assistance to others?	3.35
Do you contribute to the management of conflict and emotion within your work group or family?	3.15
How effective are you at communicating your feelings to others??	2.91
Overall Empathy	Mean 3.25
Overall Mean	3.11

3.4 Relationship Between AI Reliance and Emotional Intelligence

AI availability showed a weak but consistent positive association with all EI components, particularly motivation, social skills, empathy, and overall EI. In contrast, AI functionality and complexity demonstrated very weak and non-significant relationships **(Table 4).** The inferential analysis using Spearman's rho revealed that student nurses' overall reliance on artificial intelligence has a very weak but positive significant relationship with social skills, empathy, and overall emotional intelligence. Among the AI domains, availability was the most influential factor, showing weak but significant positive associations across all emotional intelligence components, suggesting that easy access to AI tools supports emotional and interpersonal development. In contrast, AI functionality and complexity showed negligible or non-significant correlations with emotional intelligence, indicating that technical efficiency or complexity does not directly impact students' emotional competencies.

Overall, the findings suggest that accessibility of AI tools, rather than their technical features or complexity, is associated with higher emotional intelligence, particularly in social and empathic skills. This highlights the importance of encouraging students to engage with AI in ways that enhance learning and emotional development, while recognizing that emotional intelligence primarily influences how AI is utilized, rather than being significantly shaped by AI itself

Table 4. Relationship between reliance on artificial intelligence (AI) (in terms of availability, functionality, and complexity) and the level of emotional intelligence of student nurses (in terms of self-awareness, self-regulation, motivation, social skills, and empathy) (*df* =321)

	Self-Awareness	Self-Regulation	Motivation	Social Skills	Empathy	Emotional Intelligence (Overall)
Functionality	rs = -0.014	rs = 0.029	rs = 0	rs = 0.053	rs = 0.056	rs = 0.044
	p = 0.813	p = 0.615	p = 0.995	p = 0.360	p = 0.328	p = 0.439
Availability	rs = 0.135	rs = 0.148	rs = 0.209	rs = 0.247	rs = 0.252	rs = 0.283
	p = 0.019	p = 0.01	p = 0.001*	p = 0.001	p = 0.001	p = 0.001
Complexity	rs = 0.037	rs = 0.037	rs = 0.048	rs = 0.083	rs = 0.135	rs = 0.100
	p = 0.228	p = 0.518	p = 0.404	p = 0.149	p = 0.018	p = 0.082
Artificial Intelligence (Overall)	rs = 0.09	rs = 0.086	rs = 0.103	rs = 0.155	rs = 0.175	r = 0.164
	p = 0.117	p =0.132	p = 0.072	p = 0.007	p = 0.002	p = 0.004

*Sig at 0.05

4. CONCLUSION

The student nurses demonstrated a moderate level of reliance on artificial intelligence, indicating that while AI tools are frequently used due to their accessibility and efficiency in academic tasks, they are not the primary basis for learning and decision-making among the respondents. On the other hand, the participants exhibited a high level of emotional intelligence, particularly in domains related to empathy and social interaction, reflecting the ability of student nurses to maintain interpersonal awareness and compassion qualities essential in the delivery of patient-centered care. Reliance on artificial intelligence was found to have minimal to weak relationships with the different domains of emotional intelligence, with only limited aspects showing statistical significance. While AI tools are valued for their convenience and support in academic work, their use does not appear to directly influence the emotional competencies of the respondents. The findings suggest that although artificial intelligence functions as a supplementary academic resource, the development of emotional intelligence among student nurses continues to be shaped primarily by interpersonal experiences, reflective learning, and clinical exposure. This highlights the need to maintain a balanced integration of technological tools and human-centered training in nursing education to ensure that future nurses remain both technologically competent and emotionally responsive in professional practice.

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COMPETING INTEREST

Authors have declared that no competing interests exist.

CONSENT

Respondents' written informed consent was obtained, and the confidentiality of their responses was ensured. Participants were informed of their right to voluntarily participate and to withdraw from the study at any time without penalty.

ETHICAL APPROVAL

Permission to conduct the study was obtained from the Iloilo Doctors' College Institutional Research Ethics Committee (IDIREC) prior to data collection (Approval Code: IDIREC-2025.OI_195), ensuring that the research complied with ethical standards for studies involving human participants.

DISCLAIMER (ARTIFICIAL INTELLIGENCE)

Author(s) hereby declare that generative artificial intelligence (AI) technologies, including ChatGP and Quillbot, were used during the writing or editing of this manuscript.

Details of AI usage are given below:

ChatGPT was utilized for consultation and for understanding complex or unfamiliar concepts.

Quillbot was used for grammar correction and sentence structure checking.

REFERENCES

Abasimi, E., Kamran, M., Han, X., & Mohammed Gunu, I. (2025). Emotional Intelligence and Achievement Motivation: A Study of International Students in Selected Chinese Universities. *International Journal of Psychology and Educational Studies*, *12*(3), 190–200. https://doi.org/10.52380/ijpes.2025.12.3.1214

Abou Hashish, E. A. (2025). Compassion through technology: Digital empathy concept analysis and implications in nursing. *DIGITAL HEALTH*, *11*. https://doi.org/10.1177/2055207625132622

Abuadas, M., & Albikawi, Z. (2025). Predicting nursing students' behavioral intentions to use AI: The interplay of ethical awareness, digital literacy, moral sensitivity, attitude, self-efficacy, anxiety, and social influence. Journal of Human Behavior in the Social Environment. Advance online publication. https://www.tandfonline.com/doi/full/10.1080/10911359.2025.2472852

Ain, N., Hakim, L., Pairan, M., & Zakaria, M. (n.d.). *Step-By-Step Guide to Calculating Content Validity Index (CVI) For Single Constructs Using Excel*. Retrieved November 8, 2025, from https://rsisinternational.org/journals/ijriss/Digital-Library/volume-9-issue-3/1717-1726.pdf?fbclid=IwY2xjawN7lRZleHRuA2FlbQIxMQBzcnRjBmFwcF9pZAEwAAEezCZgaZz5JReEmuwOPfcDyFBvn6ZjDrqeYmlQThYUdyxJ8lmA9hAXSBQfGh4_aem_LKg76mEEOpdkB3qvgyB0nw

AI Technologies for Social Emotional Learning: Recent Research and Future Directions (2025). *A systematic review examining AI's role in supporting social-emotional development in educational settings*. https://ai.updf.com/paper-detail/ai-technologies-for-social-emotional-learning-recent-research-and-future-sethi-jain-8420e9bc27b01fe9d8fd09c6d62940b2584dc294

Alexandrov, Sergey. (n.d.) *Reliability of Complex Services*. Retrieved from https://people.cs.rutgers.edu/~rmartin/teaching/spring06/cs553/papers/010.pdf

Almalki, M., Sacgaca, L., Pangket, P., Pasay-an, E., Hussein Deep, S., Maskay, G., Benjamin, L. S., Hashim, S. M. A., Gonzales, A., Rosal, R., Mohsen, M., Mostoles, R., & Lagura, G. A. L. (2025). Integration of artificial intelligence in nursing education: A cross-national exploration. BMC Nursing, 24, Article 1026. https://bmcnurs.biomedcentral.com/articles/10.1186/s12912-025-03689-3

Asdali,. Et al (2025) Mean interpretation of AI Adoption in Talent Acquisition. https://www.scribd.com/document/846411694/supperrrrrFINAL-RESEARCH-2?utm_source=chatgpt.com

Alshammari, M. E. (2025). Promoting Emotional and Psychological Well-being in through a Self-Help ChatGPT Intervention: Artificial Intelligence Powered Support. International Journal of Education and Innovation https://www.e-iji.net/dosyalar/iji_2025_3_26.pdf?utm_source=chatgpt.com

Aly, E. (2025). Compassion through technology: Digital empathy concept analysis and implications in nursing. *Digital Health*, *11*(1). https://doi.org/10.1177/20552076251326221

Alzaabi, M., & Shuhaiber, A. (2022). The role of AI availability and perceived risks on AI adoption and organizational values. In Intelligent Human Systems Integration (IHSI 2022) Integrating People and Intelligent Systems (pp. 1-10). Applied Human Factors and Ergonomics International. https://www.researchgate.net/profile/Ahmed-Shuhaiber-2/publication/360028390_The_Role_of_The_AI_Availability_and_Perceived_Risks_on_AI_Adoption_andOrganizational_Values/links/643e681be881690c4be0fc86/The-Role-of-The-AI-Availability-and-Perceived-Risks-on-AI-Adoption-and-Organizational-Values.pdf

Akman, S. (2023b, February 28). *What is stratified random sampling: methods & examples - forms.app*. What Is Stratified Random Sampling: Methods & Examples - Forms.app. https://forms.app/en/blog/stratified-random-sampling

Attewell, S. (2025, May 21). Student Perception of AI 2025 https://nationalcentreforai.jiscinvolve.org/wp/2025/05/21/student-perceptions-of-i-2025/?utm_source

Bahari, et al (2025) Artificial intelligence in the analysis of emotions of nursing students undergoing clinical simulation. (2023). Revista Brasileira de Enfermagem, 76(Suppl 4), e20210909. https://www.sciencedirect.com/science/article/abs/pii/S0260691725002527

Barcelona Field Studies Centre. (2023). Spearman's rank calculator: Rs, p-value, scatter graph and conclusion. GeographyFieldwork.com. https://geographyfieldwork.com/SpearmansRankCalculator.html

Buchanan, C., Howitt, M. L., Wilson, R., Booth, R. G., Risling, T., & Bamford, M. (2021). Predicted influences of artificial intelligence on nursing education: Scoping review. JMIR Nursing, https://nursing.jmir.org/2021/1/e23933/

Catanese, L. (2024, August 8). *Self-regulation for adults: Strategies for getting a handle on emotions and behavior - Harvard Health*. Harvard Health; Harvard Health. https://www.health.harvard.edu/mind-and-mood/self-regulation-for-adults-strategies-for-getting-a-handle-on-emotions-and-behavior

Carden, J. (2021). Defining self-awareness in the context of adult development: A systematic literature review. *Journal of Management Education*, *46*(1), 140–177. Sagepub. https://doi.org/10.1177/1052562921990065

Charness, N., & Boot, W. (2020). Technology Acceptance Model - an overview | ScienceDirect Topics. Sciencedirect.com. https://www.sciencedirect.com/topics/social-sciences/technology-acceptance-model

Chandra, M., Hernandez, J., Ramos, G., Ershadi, M., Bhattacharjee, A., Amores, J., Okoli, E., Paradiso, A., Warreth, S., & Suh, J. (2025). *Longitudinal Study on Social and Emotional Use of AI Conversational Agent*. arXiv.https://arxiv.org/abs/2504.14112?utm_source=chatgpt.com

Chen, L., Chen, P., & Lin, Z. (2020). Artificial intelligence in education: A review. *IEEE Access, 8*, 75264–75278. https://doi.org/10.1109/ACCESS.2020.2988510

Chohan, A. (2025, August 16). *The Economic Impact of Generative AI: the future of work in the Philippines*. Access Partnership. https://accesspartnership.com/reports/the-economic-impact-of-generative-ai-the-future-of-work-in-the-philippines/

Cole, A. (2025). Emotional intelligence unlock: Empathy, social skill for success at work, stronger relationships, and emotional wellness. Independently published. https://books.google.com.ph/books?hl=en&lr=&id=jZ9bEQAAQBAJ&oi=fnd&pg=PT6&dq=Emotional+Intelligence+by+Daniel+Goleman+with+use+of+AI+self+awareness,+empathy,+self+motivation,+social+skill&ots=A2hB_zvj-P&sig=XdKntoeCCluUZTmMZQ7N0G_Axb4&redir_esc=y#v=onepage&q&f=false

El Arab, R. A., Al Moosa, O. A., Abuadas, F. H., & Somerville, J. (2025). The role of AI in nursing education and practice: Umbrella review. Journal of Medical Internet Research, 27, e69881. https://pmc.ncbi.nlm.nih.gov/articles/PMC12008698/

Eling, F. (2025). *The Psychological Impact of Digital Isolation: How AI-Driven Social Interactions Shape Human Behaviour and Mental Well-Being*. *International Journal of Research in Innovative Social Sciences*.https://rsisinternational.org/journals/ijriss/articles/the-psychological-impact-of-digital-isolation-how-ai-driven-social-interactions-shape-human-behavior-and-mental-well-being/?

Faulkner, J., & Faulkner, J. (2022, February 23). *The 5 Dimensions of EQ: Self-Regulation in depth*. TTI Success Insights. https://blog.ttisi.com/the-5-dimensions-of-eq-self-regulation-in-depth?

Gentry, B. (2024). *The importance of empathy in the workplace*. Center for Creative Leadership. https://www.ccl.org/articles/leading-effectively-articles/empathy-in-the-workplace-a-tool-for-effective-leadership/

Georgievski, I., & Breitenbücher, U. (2021). A vision for composing, integrating and deploying AI planning functionalities. University of Stuttgart, Institute of Architecture of Application Systems. https://ieeexplore.ieee.org/abstract/document/9564364/

Gidey, K. (n.d.). *Definition of availability*. Scribd. https://www.scribd.com/document/839800956/Definition-of-Availability

Greater Good Magazine. (2009). *Empathy Definition | What Is Empathy*. Greater Good. https://greatergood.berkeley.edu/topic/empathy/definition

Gupta, M. (2022, September 9). *Normality tests* [Online forum post]. Benchmark Six Sigma Forum. https://www.benchmarksixsigma.com/forum/topic/39365-normality-tests/

Goh, A. Y. H., Hartanto, A., & Majeed, N. M. (2025). Generative Artificial Intelligence dependency: Scale development, validation and its motivational, behavioral and psychological correlates. Singapore Management University; National University of Singapore. https://osf.io/aphtb/download

Hajibabaee, F., A. Farahani, M., Ameri, Z., Salehi, T., & Hosseini, F. (2018). The relationship between empathy and emotional intelligence among Iranian nursing students. *International Journal of Medical Education*, *9*, 239–243. https://doi.org/10.5116/ijme.5b83.e2a5

Henshaw Okoroiwu Uchechi, & Euphoria Akwiwu. (2019). *Parametric and Nonparametric statistics*. *4*(2), 5–15. https://www.researchgate.net/publication/334733468_Parametric_and_Nonparametric_statistics

He, M., Abbasi, B.N., & He, J. (2025). *AI-driven language learning in higher education: self-reflection, creativity, anxiety, and emotional resilience*. *Humanities and Social Sciences Communications* *https://www.nature.com/articles/s41599-025-05817-5?utm_source=chatgpt.com*

Holmes, W., & Tuomi, I. (2022). State of the art and practice in AI in education. European Journal of Education, 57(4), 542–570. https://doi.org/10.1111/ejed.12533

Irwanto, I. (2025). Research trends on artificial intelligence in K-12 education in Asia: a bibliometric analysis using the Scopus database (1996–2025). *Discover Artificial Intelligence*, *5*(1). https://doi.org/10.1007/s44163-025-00389-4

Jenson, M. (2025, June 3). *BYU study finds the real reasons why some people choose not to use artificial intelligence*. News. https://news.byu.edu/intellect/byu-study-finds-the-real-reasons-why-some-people-choose-not-to-use-artificial-intelligence?

Kid Sense. (2024). *Social Skills*. Kid Sense Child Development. https://childdevelopment.com.au/play-and-social-skills/social-skills/

Khalifa, M., & Albadawy, M. (2024). Using artificial intelligence in academic writing and research: An essential productivity tool. Discover Education, 3(1), 12. https://doi.org/10.1016/j.discedu.2024.100012

Klimova, B., & Pikhart, M. (2025). Exploring the effects of artificial intelligence on student and academic well-being in higher education: a mini-review. Frontiers in Psychology, 16. https://doi.org/10.3389/fpsyg.2025.1498132

Langer, M., König, C. J., & Papathanasiou, M. (2021). Highly automated job interviews:

Acceptance under the influence of stakes, warnings, and personality. *Computers in Human Behavior*, 124, 106932. https://doi.org/10.1016/j.chb.2021.106932

Laulié, L., Briceño-Jiménez, G., & Henríquez-Gómez, G. (2023). Exploring self-regulation theory as a mechanism of the effects of psychological contract fulfillment: The role of emotional intelligence. *Frontiers in Psychology*, *14*, 1090094. https://doi.org/10.3389/fpsyg.2023.1090094

Lee, D., & Kwon, H. (2024). Meta-analysis on effects of artificial intelligence education in K-12 South Korean classrooms. *Education and Information Technologies*. https://doi.org/10.1007/s10639-024-12738-4

Loh, J., Chong, W. H., & Lim-Ratnam, C. (2024). Educational evaluation research in Asia: a scoping review. *Asia Pacific Journal of Education*, *44*(3), 552–568. https://doi.org/10.1080/02188791.2024.2390663

Ma, J., Wen, J., Qiu, Y., Wang, Y., Xiao, Q., Liu, T., Zhang, D., Zhao, Y., Lu, Z., & Sun, Z. (2025). The role of artificial intelligence in shaping nursing education: A comprehensive systematic review. Nurse Education in Practice. Advance online publication.Ma, J., Wen, J., Qiu, Y., Wang, Y., Xiao, Q., Liu, T., Zhang, D., Zhao, Y., Lu, Z., & Sun, Z. (2025). The role of artificial intelligence in shaping nursing education: A comprehensive systematic review. Nurse Education in Practice. Advance online publication. https://www.sciencedirect.com/science/article/abs/pii/S1471595325001015

Majolo, M., Gomes, W. B., & DeCastro, T. G. (2023). Self-Consciousness and self-awareness: Associations between stable and transitory levels of evidence. *Behavioral Sciences*, *13*(2), 117. https://doi.org/10.3390/bs13020117

McCombes, S. (2019, May 15). Descriptive Research | Definition, Types, Methods & Examples. Scribbr.
https://www.scribbr.com/methodology/descriptive-research/?fbclid=IwY2xjawN7q-FleHRuA2FlbQIxMQBzcnRjBmFwcF9pZAwzNTA2ODU1MzE3MjgAAR7462m4dn_E3LLHYL2lfuta20U117wDpQGd17l0VtreypoY7q_DC74cDNIAtw_aem_TH3bYr3wjwPS5kACd3deqA

Miao, F., & Holmes, W. (2021). AI and education: Guidance for policy-makers. UNESCO. https://unesdoc.unesco.org/ark:/48223/pf0000

Michael, R., & Oducado, F. (n.d.). *SURVEY INSTRUMENT VALIDATION RATING SCALE*.

Mitchell, T. (2020, January 30). *3. In a technology-driven era, social and fundamental skills still reign supreme within occupations*. Pew Research Center. https://www.pewresearch.org/social-trends/2020/01/30/in-a-technology-driven-era-social-and-fundamental-skills-still-reign-supreme-within-occupations/?

nurwadia. (2025). *ReliabilityandValidityofResearchInstruments*. Scribd. https://www.scribd.com/document/567456351/ReliabilityandValidityofResearchInstruments?fbclid=IwY2xjawN7Il1leHRuA2FlbQIxMQBzcnRjBmFwcF9pZAEwAAEe4B3ItZ8cHUIQavGVxuWEbjVQzFP6ipL0N4Vw0auws-yvjMJ4ai7q0uA2yNQ_aem_gcLFs1xsqdHY7eRrKNzdLw

OSF. (2025). Osf.io. https://osf.io/9d8nq/files/5skjx?fbclid=IwY2xjawN7kuJleHRuA2FlbQIxMQBzcnRjBmFwcF9pZAE

wAAEej8mUNMYd5ie-npAuOR3Urex4gSbNUO0GYhjcKy_NyAqPgfTpgkK5R8sNSSU_aem_4kj5YDdIhdjJlGLQAFrqFA

Partovi, H., & Yongpradit, P. (2024, January 18). *7 principles on responsible AI use in education*. World Economic Forum. https://www.weforum.org/stories/2024/01/ai-guidance-school-responsible-use-in-education/

raosoft sample size calculator. (2025). Dokumen.live. https://dokumen.live/reviews/s246BC/243238/4980871-raosoft-sample-size

Razali, N. M., & Wah, Y. B. (2011). Power comparisons of Shapiro–Wilk, Kolmogorov–Smirnov, Lilliefors and Anderson–Darling tests. Journal of Statistical Modeling and Analytics, 2(1), 21–33.https://www.scirp.org/reference/referencespapers?referenceid=2050949

Romero, M., Frosig, T., Taylor-Beswick, A. M. L., Laru, J., Bernasco, B., Urmeneta, A., Strutynska, O., & Girard, M. (2024). Manifesto in Defence of Human-Centred Education in the Age of Artificial Intelligence. In *Creative Application of Artificial intelligence* (pp. 157–178). https://doi.org/10.1007/978-3-031-55272-4_12

Salameh-Ayanian, M., Tamer, N., & Maalouf, A. (2025). The Importance of Emotional Intelligence in Managers and Its Impact on Employee Performance Amid Turbulent Times. *Administrative Sciences*, *15*(8), 300. https://doi.org/10.3390/admsci15080300

Shang, Z. (2021). A concept analysis on the use of artificial intelligence in nursing. Cureus, 13(5), e14857. https://assets.cureus.com/uploads/review_article/pdf/56822/20210604-20695-1r0r63y.pdf

Simkus, J. (2023, July 31). *Stratified random sampling | definition, steps & examples - simply psychology*. Www.simplypsychology.org. https://www.simplypsychology.org/stratified-random-sampling.html

Shubinsky, I, and Hendrik Schäbe. “ON the DEFINITION of FUNCTIONAL RELIABILITY.” *Hendrik Schabe -on the DEFENITION of FUNCTIONAL RELIABILITY RT&A #*, vol. 04, no. 27, 2012, www.gnedenko.net/Journal/2012/042012/RTA_4_2012-01.pdf. Accessed 14 Nov. 2025.

Shao, Y., Wu, J., Li, Y., Lu, Q., & Wang, Z. (2025). The impact of digital technology use on students’ emotional intelligence and academic performance. BMC Psychology. https://link.springer.com/article/10.1186/s40359-025-02967-8

Sajja, R., Sermet, Y., & Demir, I. (2025). Evaluating artificial intelligence assisted nursing education: Student perceptions, ethical concerns, and pedagogical implications. Preprint. https://www.medrxiv.org/content/10.1101/2025.06.09.25329272v1

Statistics Solutions. (2025). Spearman’s rank-order correlation. https://www.statisticssolutions.com/free-resources/directory-of-statistical-analyses/spearman-rank-correlation/

Suriá-Martínez, R., García-Castillo, F., López-Sánchez, C., & García del Castillo, J. A. (2025). *Emotional profiles and their relationship with the use of artificial intelligence in university students*. Preprints. https://doi.org/10.20944/preprints202509.1801.v1

SurveyMonkey. (2021). Correlational research: What it is and how to use it. https://pt.surveymonkey.com/market-research/resources/correlational-research/

Su, J., Zhong, Y., & Ng, D. T. K. (2022). A meta-review of literature on educational approaches for teaching AI at the K-12 levels in the Asia-Pacific region. *Computers and Education Artificial Intelligence*, *3*, 100065. https://doi.org/10.1016/j.caeai.2022.100065

Tacy,. et al (2021) Technostress: Concept Analysis. Online Journal of Nursing Informatics (ONLINE J NURS INFORM),Summer2016; 20(2): 8-8. (1p) https://www.researchgate.net/publication/316504681_Technostress_A_concept_analysis

The Boston EI Questionnaire. (n.d.). Retrieved from https://www.scribd.com/document/409776036/The-Boston-EI-Questionnaire

Trigueros, R., Sanchez-Sanchez, E., Mercader, I., Aguilar-Parra, J. M., López-Liria, R., Morales-Gázquez, M. J., Fernández-Campoy, J. M., & Rocamora, P. (2020). Relationship between Emotional Intelligence, Social Skills and Peer Harassment. A Study with High School Students. *International Journal of Environmental Research and Public Health*, *17*(12), 4208. https://doi.org/10.3390/ijerph17124208

Tang, J. J. “Defining Availability, Maintainability and Reliability in SRE.” (2021, October 21). *DevOps.com*, 25 Oct. 2021, devops.com/defining-availability-maintainability-and-reliability-in-sre/.

Uluç, Ö. S. (2023, July 8). A Milestone of Intelligent Development: Daniel Goleman’s Emotional Intelligence Theory - Experianta. Experianta - Land of Experiential Learners! https://experianta.com/directory/concepts/a-milestone-of-intelligent-development-daniel-golemans-emotional-intelligence-theory/

UNESCO. (2023). *Artificial intelligence in education*. UNESCO https://www.unesco.org/en/digital-education/artificial-intelligence

Valdez, P. J. M., Padilla, Z. M., Sison, P. J., & De Luna, L. R. (2023). Emotional Intelligence, Self-Efficacy and Resilience among Filipino Nursing University Students in the Blended Learning Setup: A Mediation Analysis Using PLS-SEM. In Proceedings of the International Conference on e-Learning, e-Business, Enterprise Information Systems, and e-Government (ICEBE) (pp. 25-31) https://dl.acm.org/doi/10.1145/3588243.3588263

vbadmin. (2025, February 2). *The Pillar of Self-Regulation in Emotional Intelligence - Obnatus*. Obnatus - Become the Best Version of Yourself. https://obnat.us/2025/02/02/the-pillar-of-self-regulation-in-emotional-intelligence/

View of ANALYSIS OF THE ROLE OF EMOTIONAL INTELLIGENCE INCREASING LEARNING MOTIVATION CRITICAL PEDAGOGIC PERSPECTIVE. (2026). Altinriset.com. https://altinriset.com/journal/index.php/jkpp/article/view/376/269

View of Impact of AI on the inclusion of Learners with Special needs: Public Policy Perspective Contemporary Scenario. (n.d.). https://arborjournal.com/index.php/view/article/view/34/34

Villafuerte, C. M. (2024). Aproximación a las competencias digitales emocionales, definiciones y conceptualización. *Reincisol*, *3*(6), 2376–2393. https://www.mdpi.com/2076-328X/15/11/1573#B35-behavsci-15-01573

Wangpitipanit, S., Lininger, J., & Anderson, N. (2024). Exploring the deep learning of artificial intelligence in nursing: A concept analysis with Walker and Avant's approach. BMC Nursing, 23, Article 529.https://link.springer.com/article/10.1186/s12912-024-02170-x

Weissinger, L. B. (2021). AI, complexity, and regulation. SSRN Electronic Journal. https://ssrn. https://www.researchgate.net/publication/365205556_AI_Complexity_and_Regulation

Wei, Q., Pan, S., Liu, X., Hong, M., Nong, C., & Zhang, W. (2025). The integration of AI in nursing: addressing current applications, challenges, and future directions. *Frontiers in Medicine*, *12*, 1545420. https://doi.org/10.3389/fmed.2025.1545420