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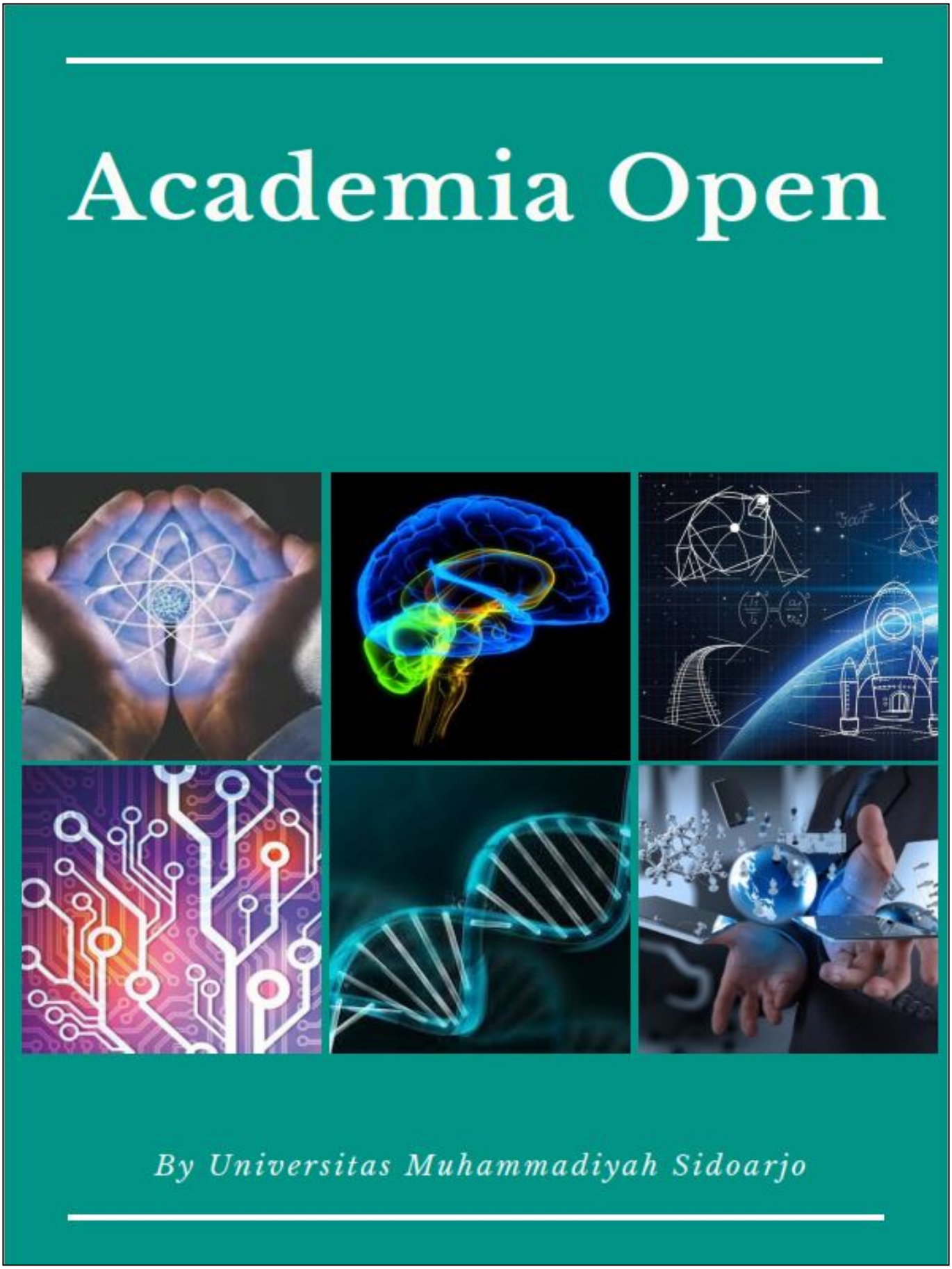

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Academic Self-Efficacy Between Second-Year Nursing and Pharmacy Students at Basra Medical Institute: Comparative Study

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Abstract

General Background: Academic self-efficacy plays a critical role in influencing students' motivation, learning strategies, and academic performance. It reflects individuals' belief in their ability to accomplish academic tasks effectively. Specific Background: Despite its significance, differences in self-efficacy levels among students from different health disciplines, particularly in Iraq, are understudied. Knowledge Gap: There is limited empirical evidence comparing academic self-efficacy between nursing and pharmacy students in Iraqi medical education settings. Aims: This study aimed to assess and compare academic self-efficacy levels among second-year nursing and pharmacy students at Basra Medical Institute and examine the influence of age and gender. Results: The findings revealed that pharmacy students had moderately higher academic self-efficacy (M = 2.62) compared to nursing students (M = 2.37). Age significantly influenced pharmacy students' self-efficacy, favoring older students, while gender had no significant impact in either group. Novelty: This study provides the first comparative analysis of self-efficacy in these student groups within the Iraqi context and highlights discipline-specific challenges in applying knowledge. Implications: The results suggest the need for tailored interventions, such as mentorship, interactive learning, and psychological support programs, particularly for nursing students, to enhance academic self-confidence and performance.

Highlight :

- Nursing students had lower academic self-efficacy compared to pharmacy students.
- Age significantly influenced pharmacy students' self-efficacy, but not for nursing students.
- Both groups showed high self-efficacy in leadership roles, yet struggled in practical application tasks.

Keywords : Academic Self-Efficacy, Pharmacy Students, Nursing Students, Age, Gender

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Introduction

Academic self-efficacy is one of the most important factors affecting academic achievement. Academic self-efficacy refers to students' beliefs and attitudes about their ability to achieve academic success, as well as their beliefs about their ability to complete academic tasks and successfully learn materials [1]. Therefore, self-efficacy appears to be one of the most important factors affecting students' academic success [2]. Self-efficacy consists of people's judgments about their ability to complete tasks and learners' confidence in their cognitive learning abilities [3]. Students with higher self-efficacy show greater effort and persistence in challenging situations [4]. Although self-efficacy has a positive impact on effort, there is evidence that the quality of effort varies among students with self-efficacy; such students use a variety of deeper cognitive and metacognitive processing strategies compared to their peers with lower self-efficacy[5] [6]. This leads to better learning outcomes and higher academic achievement. In contrast, students with low self-efficacy seek easier tasks to avoid failure and adopt superficial strategies, while neglecting deeper learning [7] [8]. Academic self-efficacy is generally considered to be a person's belief that he or she can achieve a certain level of academic achievement. At the same time, some researchers have pointed out that students with high academic self-efficacy show greater resilience in adversity and are able to persist longer in the face of challenges. Therefore, they will undoubtedly achieve excellent academic achievements with perseverance [9] [10]. Self-efficacy can promote academic motivation. Self-efficacy can have a positive impact on academic motivation. Positive self-efficacy can encourage students to develop learning strategies. Good self-efficacy can improve students' classroom performance. Students with good self-efficacy are able to overcome difficulties when they encounter difficulties in learning. Good student self-efficacy can also optimize creativity in problem solving in the classroom. Good self-efficacy will motivate students to continuously strive to achieve their set goals. Therefore, self-efficacy can enhance students' motivation to learn [11]. The learning environment has a significant impact on the development of students' creative self-efficacy and the relationship between comprehensive learning and skills (CSE) behaviors. Behaviors are the result of the interaction between personal factors (e.g., CSE) and the environment in which the behavior is implemented (e.g., the extent to which teachers model creativity). Many teachers will instinctively create a supportive environment that is conducive to the development of CSE, but relatively few studies in the literature specifically explore the psychology of CSE in undergraduate science education. [12] [13] Self-efficacy exists in the self-regulatory process that influences individuals to choose and design their environment. Bandura defines perceived self-efficacy as "an assessment of an individual's ability to organize and execute the necessary action plan to achieve a specific performance goal. It is not about the individual's ability, but an assessment of what the individual can achieve with his or her own ability. In other words, self-efficacy refers to the individual's belief in his or her ability to complete the task, rather than the belief in the actual ability required to complete the task." [14] [15] Self-efficacy can be divided into two categories: general self-efficacy and task-specific self-efficacy. An individual's assessment of his or her ability to operate in different situations is called general self-efficacy. It assesses an individual's broad and stable perception of his or her ability to cope with various stressful situations [16] [17]. General self-efficacy is a stable, trait-like attribute, while specific self-efficacy is a relatively flexible independent variable. Task-specific self-efficacy is measured in a specific domain and examines an individual's feelings about his or her ability to perform actions in a specific situation. Perceived task-specific self-efficacy depends on the context and situational demands, and its measurement is intended to provide a clear picture of an individual's confidence in their ability to perform a specific task or skill[18]. Across tasks and contexts, general self-efficacy has a positive influence on task-specific self-efficacy - when individuals demonstrate high self-efficacy in different contexts and activities, this is usually reflected in the environment unique to that specific activity. [19] [20]

Methods

A. Study Design

A comparative cross-sectional study was conducted to assess and compare academic self-efficacy levels between second-year nursing and pharmacy students at Basra Medical Institute. The study was carried out between January and April 2025.

B. Ethical Approval

Ethical approval was obtained from the Research Ethics Committee of the Southern Technical University, Technical Institute of Basra. Participation was voluntary, and all participants provided informed consent before completing the questionnaire. Confidentiality and anonymity of participants were strictly maintained[21].

C. Setting of the Study

The study was conducted at Basra Medical Institute, a public educational institution located in Basra City, Iraq. The institute includes multiple health science departments, including nursing and pharmacy.

D. Sampling Technique

A convenience sampling technique was used to recruit participants. The target population consisted of second-year students enrolled in the nursing and pharmacy departments. Students from other academic years or departments were excluded. A total of 81 students who met the inclusion criteria were included in the final analysis.

E. Data Collection Methods

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Data were collected using the College Academic Self-Efficacy Scale (CASES), a validated questionnaire comprising 33 items rated on a 5-point Likert scale (1 = Exactly True to 5 = Exactly False). The questionnaire was divided into two parts: socio-demographic information (age, gender, department) and academic self-efficacy assessment. The average time required to complete the questionnaire was 10–15 minutes.

F . Statistical Analysis

Data were analyzed using the Statistical Package for the Social Sciences (SPSS) version 28. Descriptive statistics (mean, standard deviation, frequencies, and percentages) were used to summarize the data. Inferential statistics, including independent samples t-tests and chi-square tests, were applied to determine differences between groups. A p-value of less than 0.05 was considered statistically significant.

Results and Discussion

A. Results

Table (1)presents the demographic characteristics of the study participants. The majority (55.6%) are older than 20 years, while 44.4% are 20 or below. The gender distribution shows that most participants are female (80.2%), with only 19.8% being male. Regarding academic departments, 56.8% belong to the pharmacy department, whereas 43.2% are in nursing. These demographics highlight a predominance of older students, a higher female representation, and a greater proportion of pharmacy students in the sample.

[Table 1. about here]

Table (2) The highest mean score was observed in Q14: Running for student government office (M = 4.2571), indicating strong self-efficacy in this area. In contrast, the lowest mean score was recorded in Q10: Explaining a concept to another student (M = 1.2286).

[Table 2. about here]

Table (3)The highest mean score was observed in Q14: Running for student government office (M = 3.8913), indicating strong self-efficacy in this area. In contrast, the lowest mean score was recorded in Q28: Applying lecture content to a laboratory session **(**M = 1.9783) among pharmacy students.

[Table 3. about here]

Table (4)evaluates academic self-efficacyamong nursing and pharmacy students**.** Findings indicate that nursing studentsexhibit a low level of self-efficacy (M = 2.37, SD = 0.49), whereas pharmacy studentsshow a moderate level (M = 2.62, SD = 0.66). The results highlight a significant variation in self-efficacy between the two groups.

[Table 4. about here]

Table (5) show Academic self-efficacy among pharmacy students is significantly influenced by age (p = 0.012), with older students (>20 years) scoring higher (M = 2.88) than younger ones (M = 2.41). However, gender differences are not significant (p = 0.367), indicating no substantial variation in self-efficacy between male and female students.

[Table 5. about here]

Table (6) The results indicate no significant differences in nursing students' academic self-efficacy based on age or gender, as the p-values are above 0.05. This suggests that these factors do not significantly impact students' confidence in their academic abilities.

[Table 6. about here]

B. Discussion

A descriptive cross-sectional study was conducted to assess academic self-efficacy among second-year nursing and pharmacy students at Basra Medical Institute, Iraq. A total of 81 participants were included in this study, conducted from January to April 2025. The survey questionnaire utilized Likert-scale items to measure academic self-efficacy among the students. Additionally, qualitative interviews provided in-depth insights into students' social roles in evaluating and improving academic self-efficacy. This study aims to explore academic self-efficacy among second-year nursing and pharmacy students at Basra Medical Institute.

1. Demographic characteristics

In this study indicate that More than 50% of the sample were over 20 years. old majority of the research sample was female, approximately 80% These results disagreed with the study outcomes conducted by [22] [23] who revealed that most the participants was (20.7 %) in the age group of 20 and above years of age. male more than female was 54.4 %.This result is in

agreement with the study findings done by[24] [25] which found that the highest percent was (73.2%) of female.

2. Academic self-efficacy of nursing and pharmacy students.

The results of this study indicate that the highest mean score was recorded for Q14: Running for student government office (M = 4.2571), suggesting a high level of self-efficacy in this area among nursing and pharmacy students. In contrast, the lowest mean score was recorded for Q10: Explaining a concept to another student (M = 1.2286) among nursing students, indicating significant difficulty in this task.

These findings are consistent with those of [26] [27], who identified leadership self-efficacy as a crucial predictor of leadership capacity development and a determinant of students' engagement in leadership behaviors. Students with lower leadership self-efficacy may be less inclined to participate in leadership opportunities, as they might doubt their ability to succeed in such roles[28].

Leadership self-efficacy plays a fundamental role in student development, as it fosters motivation to engage in leadership activities. Enhancing leadership performance and capacity is essential for student success[29]. A key experience that contributes to the development of leadership self-efficacy is positional leadership opportunities, which enable students to apply leadership behaviors in practice, thereby increasing their confidence in future leadership roles.

Explaining a concept to peers is a critical component of collaborative learning, yet it presents notable challenges in educational contexts. Research suggests that while peer teaching enhances conceptual understanding, many students struggle with effectively articulating ideas[30]. Studies indicate that successful peer explanations require both epistemological understanding and the ability to identify instructional challenges, skills that many students have yet to develop [14].

Moreover, [31] [32] argue that concept differentiation is a dynamic process in which misconceptions persist unless addressed through structured communication. This supports the notion that students may find it difficult to convey complex ideas due to gaps in their conceptual understanding. The findings of [16] [33] further suggest that this difficulty reflects low self-efficacy in explaining concepts to others. These findings suggest that students with higher leadership self-efficacy may also possess stronger communication and organizational skills, which could facilitate their ability to explain concepts effectively. Conversely, students with lower leadership self-efficacy may lack the confidence needed to engage in peer. The study indicated the lowest mean score was recorded in Q28: Applying lecture content to a laboratory session (M = 1.9783) among pharmacy students, The low mean score recorded in Question highlights significant educational challenges in pharmacy education, particularly in bridging theoretical knowledge with practical application. Only 34% of students perceive laboratory sessions as adding value beyond lectures, indicating a disconnect between classroom learning and hands-on practice. Traditional scaffolding methods, such as laboratory guides and introductory lectures, have proven insufficient in preparing students for laboratory tasks, contributing to a sense of unpreparedness and lower engagement. [34]

3. Overall assessment of academic self-efficacy

This analysis examines scholastic self-efficacy among nursing and pharmacy learners. Findings show that nursing pupils display a low level of self-assurance (M = 2.37, SD = 0.49), while pharmacy learners demonstrate a moderate level (M = 2.62, SD = 0.66). The outcomes highlight a notable difference in self-efficacy between the two groups, implying the necessity for targeted interventions to bolster students' belief in their academic abilities. A study conducted in America found that nursing learners experience elevated levels of stress compared to other healthcare fields, negatively impacting their confidence in scholarly abilities [18]. Furthermore, the unpredictable nature of clinical settings, where students must handle intricate medical situations and make swift decisions, regularly leads to heightened anxiety and doubt. In contrast, pharmacy learners exhibit a moderate level of self-efficacy, attributable to the hands-on learning approach integrated into their curriculum. Research suggests experiential learning, like laboratory work and field training in pharmacies, plays a crucial role in developing students’ assurance by allowing them to apply theoretical knowledge in real world settings [35]. Recommendations to Enhance Academic Self-Efficacy Given these findings, targeted interventions are needed to better nursing students’ self-efficacy through psychological support programs and stress management training. Studies have highlighted that integrating resilience training and mindfulness techniques can positively impact academic self-efficacy levels [20]. On the other hand, pharmacy learners may benefit from mentorship programs to further cultivate their clinical abilities and confidence during field training. Additionally, incorporating interactive learning techniques such as clinical simulations can enhance students’ capacity to handle real world professional challenges, ultimately boosting their self-efficacy. [21]

4. Pharmacy Student academic self-efficacy relation with (Age,Gender)

The findings clearly show that age plays a pivotal role in shaping academic self-assurance among pharmacy trainees. Specifically, participants over twenty years of age reported markedly higher self-efficacy (M = 2.88) than their younger peers (M = 2.41, p = 0.012). These outcomes mirror those of [22], who revealed notable discrepancies in self-efficacy levels contingent on age. Namely, individuals aged twenty-seven and up displayed more robust self-efficacy compared to those under twenty. This proposed that elder pupils might feel more confident in tackling duties and possess greater self-efficacy than younger students. Intriguingly, the study results failed to detect statistically meaningful (p = 0.367) gender variations, implying no substantial disparity in self-efficacy between male and female students. This discovery contradicts the conclusions of research conducted by Chavez et al in 2014, which established that feminine trainees reported higher academic self-efficacy than their male equivalents. This proposes that female pupils tend to feel more assured in their

potential to succeed academically.

5. Nursing Student Academic Self-Efficacy Relation with (Age, Gender)

This investigation too examines the impact of years and sex on nursing understudies' scholarly self-effectiveness (ASE). The discoveries demonstrate that neither sex nor age essentially influence nursing understudies' ASE. These outcomes contrast with those of an examination led by [36], which found that age essentially anticipated ASE scores among nursing understudies, proposing that more seasoned understudies may have diverse ASE levels looked with their more youthful partners. Additionally, it was uncovered that sex plays a job in deciding ASE scores. While explicit subtleties on how male and female understudies differ in ASE aren't given, the investigation implies that varieties exist in light of both years and sex. This discovering contradicts the outcomes of an examination by [24], which found that sociodemographic elements, for example, sex and age influence self-adequacy and pressure levels. The investigation proposes that the impact of directing and learning conditions may be more huge. For occasion, self-adequacy was altogether impacted by sex. Additionally, a portion of the more youthful understudies' ASE scores contrasted fundamentally from their more seasoned partners in view of various instructional techniques.

Conclusions

1.Differences in Self-Efficacy nursing students exhibit lower academic self-efficacy compared to pharmacy students, indicating a need for targeted interventions to improve confidence levels.

2.Impact of Age on Pharmacy Students older pharmacy students (>20 years) demonstrate significantly higher self-efficacy than younger students, while gender differences in self-efficacy are not statistically significant.

3.No Significant Factors for Nursing students Age and gender do not have a significant impact on nursing students' academic self-efficacy, suggesting that other factors may influence their confidence levels.

4.Overall Lack of Influence from demographics Across both nursing and pharmacy students, academic self-efficacy is not significantly affected by age, gender, or department, implying that other variables may play a more critical role.

5.Specific Strengths and Weaknesses both nursing and pharmacy students exhibit strong self-efficacy in leadership roles (e.g., running for student government), but they struggle with applying knowledge practically—nursing students with explaining concepts and pharmacy students with applying lecture content in labs

Conflict of Interests

The authors declared no conflict of interest.

References

1. A. A. Hayat, K. Shateri, M. Amini, dan N. Shokrpour, "Relationships Between Academic Self-Efficacy, Learning-Related Emotions, and Metacognitive Learning Strategies With Academic Performance in Medical Students: A Structural Equation Model," BMC Medical Education, vol. 20, pp. 1–11, 2020.
2. M. M. Chemers, L. T. Hu, dan B. F. Garcia, "Academic Self-Efficacy and First Year College Student Performance and Adjustment," Journal of Educational Psychology, vol. 93, no. 1, p. 55, 2001.
3. Ö. Sadi dan M. Uyar, "The Relationship Between Self-Efficacy, Self-Regulated Learning Strategies and Achievement: A Path Model," 2013.
4. M. K. Mutashar, K. J. Awad, dan M. A. Atiyah, "Hyperactivity Disorders: An Assessment of Kindergarten Teachers' Knowledge," Indonesian Journal of Health Sciences and Medicine, vol. 1, no. 2, 2024.
5. D. H. Schunk, "Self-Regulation and Academic Learning: Self-Efficacy Enhancing Interventions," Handbook of Self-Regulation, Academic Press, 2000.
6. H. H. Abdul-Ra'aoof, A. M. Tiryag, dan M. A. Atiyah, "Knowledge, Attitudes, and Practice of Nursing Students About Insulin Therapy: A Cross-Sectional Study," Academia Open, vol. 9, no. 1, pp. 10–21070, 2024.
7. Y. Luo, W. Gao, dan X. Liu, "Longitudinal Relationship Between Self-Esteem and Academic Self-Efficacy Among College Students in China: Evidence From a Cross-Lagged Model," Frontiers in Psychology, vol. 13, p. 877343, 2022.
8. S. S. Hamid, W. D. A. Ali, dan M. A. Atiyah, "Assessing Nursing Students' Knowledge of Sleeve Gastrectomy Effects," Academia Open, vol. 9, no. 2, pp. 10–21070, 2024.
9. H. G. Hidajat et al., "The Role of Self-Efficacy in Improving Student Academic Motivation," KnE Social Sciences, pp. 175–187, 2023.
10. M. F. Hasan, F. H. Khalaf, M. K. Mutashar, W. S. Mahdi, dan M. A. Atiyah, "Physiological Adaptation to Left Ventricular Enlargement," Indonesian Journal of Health Sciences and Medicine, vol. 2, no. 1, pp. 10–21070, 2025.
11. S. M. Payne dan D. E. Whitworth, "Increasing Creative Self-Efficacy: Developing the Confidence of Biochemistry Undergraduates to Innovate," Biochemistry and Molecular Biology Education, vol. 50, no. 3, pp. 296–306, 2022.
12. W. D. A. Ali et al., "Assessing Nurses' Knowledge on Medication to Reduce Errors in Iraq," Academia Open, vol. 9, no. 2, pp. 10–21070, 2024.
13. C. Krizman, "The Relationship Between Teachers' Self-Efficacy Beliefs and Parental Involvement Practices: A Multi-Method Study," 2013.
14. C. A. Scherbaum, Y. Cohen-Charash, dan M. J. Kern, "Measuring General Self-Efficacy: A Comparison of Three

Measures Using Item Response Theory," Educational and Psychological Measurement, vol. 66, no. 6, pp. 1047–1063, 2006.
15. K. Saks, "The Effect of Self-Efficacy and Self-Set Grade Goals on Academic Outcomes," Frontiers in Psychology, vol. 15, p. 1324007, 2024.
16. G. Bulfone et al., "Nursing Students' Academic Self-Efficacy: A Longitudinal Analysis of Academic Self-Efficacy Changes and Predictive Variables Over Time," Journal of Advanced Nursing, vol. 77, no. 5, pp. 2353–2362, 2021.
17. C. S. Hataway, "The Influence of Academic Self-Efficacy on the Early Academic Success of Underrepresented Minority Nursing Students," Ph.D. dissertation, Nova Southeastern Univ., 2016.
18. M. M. El-Sayed, M. A. E. G. Mousa, dan E. A. E. F. Abd-Elhamid, "Academic Motivation, Academic Self-Efficacy and Perceived Social Support Among Undergraduate Nursing Students," Assiut Scientific Nursing Journal, vol. 9, no. 24, pp. 76–86, 2021.
19. A. Y. Mentari dan W. Widyastuti, "Overview of Academic Self-Efficacy in Students Working at the Surabaya Pharmacy Academy," Psikologia: Jurnal Psikologi, vol. 8, no. 2, pp. 10–21070, 2023.
20. A. D. KV dan S. Usharani, "Academic Self-Efficacy and Hardiness Among College Students – An Exploratory Study," Journal of the Indian Academy of Applied Psychology, vol. 49, no. 2, pp. 246–254, 2023.
21. M. Ashraf et al., "A Cross-Sectional Assessment of Knowledge, Attitudes and Self-Perceived Effectiveness of Complementary and Alternative Medicine," BMC Complementary and Alternative Medicine, vol. 19, pp. 1–12, 2019.
22. M. A. Atiyah dan M. F. Hasan, "Assessment of Pharmacy Staff Knowledge Towards Prevention of Osteoporosis in Adolescent Girls," Age, vol. 20, no. 6, pp. 30–39, 2024.
23. B. S. Phillips, "Leadership Self-Efficacy of Students Participating in On-Campus Leadership Programming," 2022.
24. E. Wegner, N. Anders, dan M. Nückles, "Student Teachers' Perception of Dilemmatic Demands and the Relation to Epistemological Beliefs," Frontline Learning Research, vol. 2, no. 3, pp. 46–63, 2014.
25. I. T. Koponen dan T. Kokkonen, "A Systemic View of the Learning and Differentiation of Scientific Concepts: The Case of Electric Current and Voltage Revisited," Frontline Learning Research, vol. 4, pp. 140–166, 2014.
26. M. A. Atiyah, "Nurses' Knowledge Regarding Management of Hypovolemic Shock: A Cross-Sectional Study," Academia Open, vol. 9, no. 2, pp. 10–21070, 2024.
27. M. E. Kiersma et al., "Laboratory Session to Improve First-Year Pharmacy Students' Knowledge and Confidence Concerning the Prevention of Medication Errors," American Journal of Pharmaceutical Education, vol. 73, no. 6, p. 99, 2009, doi: 10.5688/aj730699.
28. Y. A. Ismail et al., "Prevalence of Sleep Disorders and Its Impact on Academic Performance Among Medical Students in Port Said University," 2024.
29. W. D. A. Ali et al., "Critical Knowledge Gaps in Iraqi Nurses' Understanding of Antihypertensive Drug Risks," Academia Open, vol. 9, no. 1, pp. 10–21070, 2024.
30. S. Kilroy et al., "Utilizing Simulation-Enhanced Interprofessional Education to Identify Differences in Healthcare Students' Collaborative Practice Behaviors," Nurse Education Today, p. 106569, 2025.
31. A. A. Maher, "Knowledge of Nursing College Students on Preventive Measures for Irritable Bowel Syndrome: Pre-Experimental Study," International Journal of Integrated Modern Medicine, vol. 2, no. 3, pp. 16–24, 2024.
32. D. Barrientos, "Examining Academic Motivation and Self-Efficacy of the College Students in the Online-Distance Learning," International Journal of Multidisciplinary Research, 2023.
33. J. F. A. Chavez et al., "A Gender Study on College Students' Academic Self-Efficacy," Science Journal of Education, vol. 2, no. 6, pp. 180–184, 2014.
34. O. İncesu dan S. Ulupınar, "The Relationship Between Attitudes Towards Academic Self-Efficacy and Self and Peer Assessment in Turkish Nursing Students," Nursing Open, vol. 11, no. 11, p. e70094, 2024.
35. M. K. Mohammed Kadhim, F. H. Mahfoudh, dan A. A. Maher, "Morphology of Medical Pathological Terms With the Prefix (Cardio)," International Journal of Language Learning and Applied Linguistics, vol. 3, no. 3, pp. 21–24, 2024.
36. G. Bahari, "Key Factors Supporting Nursing Students' Academic Success and Recommendations to Enhance Learning Outcomes," Nurse Educator, pp. 10–1097, 2024.

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