

Influence Of Chatgpt on Learning Behaviour and Academic Outcomes Among Nursing Students: A Descriptive Analysis

Esakkiammal M¹, Surabhi Br², Vijitha Karunya³
^{1,2,3}Holy Spirit Institution of Nursing Education

Abstract—Background: ChatGPT and similar AI-driven tools are increasingly used in nursing education. However, limited research has examined how such tools shape students' learning practices and academic outcomes.

Aim: This study explores how nursing students utilize ChatGPT and evaluates their perceptions regarding its role in learning and performance. **Methods:** A descriptive cross-sectional approach was employed. Data were collected using a structured questionnaire focusing on usage trends, perceived academic benefits, and difficulties encountered. **Results:** Almost all participants (97.2%) reported using ChatGPT for academic support. A considerable proportion (34.3%) accessed the tool two to three times weekly, typically for 15–30 minutes per session. Students reported improved understanding of theoretical content, better organization of assignments, and enhanced exam preparation. Reported issues included inaccurate or outdated responses (53.3%), poor connectivity (26.7%), and reduced critical thinking due to overreliance (13.4%). **Conclusion:** ChatGPT positively contributes to self-learning and academic preparedness among nursing students. Nevertheless, responsible use, verification of AI-generated information, and faculty guidance are essential to avoid misuse and dependency.

Index Terms—Artificial intelligence, Nursing students, ChatGPT, Academic performance, Learning enhancement.

I. INTRODUCTION

The integration of artificial intelligence (AI) into higher education has transformed how students access and process knowledge. ChatGPT is one such tool that has quickly gained popularity for generating instantaneous explanations, summarizing content, and supporting academic tasks. Nursing students increasingly rely on such tools to reinforce learning.

Despite its popularity, concerns persist regarding the accuracy of AI-generated responses, risk of overdependence, and potential compromise of academic integrity. Limited research exists on how ChatGPT specifically affects nursing students' learning patterns. This study investigates the way nursing students use ChatGPT and examines their perceptions of its influence on learning and academic achievement.

II. METHODOLOGY

Design:The study followed a descriptive cross-sectional design. **Participants:** Nursing students who had prior experience using ChatGPT for academic activities. **Sampling:** Convenience sampling was adopted. **Tool:** A structured questionnaire covering demographics, usage frequency, perceived impact, and challenges. **Data Collection:** Conducted through an online Google Form following informed consent. **Data Analysis:** Data were analyzed using descriptive statistics (frequencies and percentages).

III. RESULT

Table:1 ChatGPT Usage Pattern Among Nursing Students

Variable	Category	Percentage (%)
Use for academic purposes	Yes	97.2
Frequency of use	2–3 times weekly	34.3
Time spent per session	15–30 minutes	Majority
Main uses	Concepts, assignments, exam prep	High

Table:2 Perceived Influence on Learning and Academic Performance

Domain	Influence	Participant Perception
Understanding of concepts	High	Improved clarity
Assignment work	High	Better structure and accuracy
Exam preparation	High	Faster revision
Self-learning	High	Encouraged independence

REFERENCE

- [1] 1.González-Cabarcos M.A., et al. (2024). ChatGPT and Nursing Students: A Cross-sectional Study. *Heliyon*.
- [2] 2.Kim, M. & Kim, M.Y. (2023). Effects of ChatGPT Training in Nursing Process Education.
- [3] 3.Shinners, J.S. (2023). ChatGPT in Nursing: Faculty Perspectives.
- [4] 4. Yılmaz, E., et al. (2023). Virtual Patient Simulation Using ChatGPT in Nursing.

Table:3 Challenges Experienced with Chat GPT

Issue	Percentage (%)
Inaccurate/outdated content	53.3
Connectivity issues	26.7
Reduced critical thinking due to overuse	13.4

IV. DISCUSSION

The findings demonstrate extensive uptake of ChatGPT among nursing students. Participants appreciated its ability to clarify complex topics, support assignment completion, and strengthen exam preparation. The results support earlier research indicating that AI tools promote self-directed learning.

However, concerns such as response inaccuracies, dependency risks, and academic integrity issues highlight the need for guided use. Educators must emphasize the verification of AI-generated content and reinforce critical thinking.

V. CONCLUSION

ChatGPT contributes positively to academic preparedness and self-learning among nursing students. Nonetheless, it should serve as a supplementary learning tool rather than a replacement for teacher guidance or clinical reasoning. Ethical usage, digital literacy, and faculty supervision are essential for safe integration.