

# Perception of ChatGPT by Nursing Undergraduates

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**Abstract.** The study aimed to investigate the awareness and use of ChatGPT among undergraduate nursing students. A structured questionnaire was used to assess the awareness and use of ChatGPT. The questionnaire was undergraduate nursing students enrolled in 2021. The response rate to the survey was 90.2% (46/51). Of the respondents, 45 students were aware of ChatGPT, and only one student was not aware of ChatGPT. In terms of usage, 23 students responded. Among them, 16 used ChatGPT to enhance their learning experience, six for homework, five for chatting, four for essay writing, and one for other purposes. This study provides valuable insights for the better use of ChatGPT in nursing education.

**Keywords.** ChatGPT, nursing student, perception, large language model, education

## 1. Introduction

ChatGPT is an advanced large language model that has been used in a variety of fields, including healthcare and nursing education [1-3]. Its remarkable ability to generate human-like text and provide assistance has attracted the interest of the academic community. To explore the awareness and use of ChatGPT among undergraduate nursing students, we investigated the use of ChatGPT among second-year nursing students (entering in 2021) at the West China School of Nursing, Sichuan University. This prestigious institution is renowned for its excellence in nursing education. The results of this study are expected to contribute to the future integration of ChatGPT into nursing education.

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## 2. Methods

A questionnaire was developed in collaboration with two nurse educators and three nursing informatics experts to assess the awareness and use of ChatGPT (GPT3.5, GPT4) among undergraduate nursing students. The questionnaire consisted of sections on demographics, awareness, and use of ChatGPT. The survey was conducted anonymously and voluntarily to 51 undergraduate nursing students enrolled in the 2021 cohort between 7 and 14 September 2023. Completed paper-based questionnaires were returned to the designated location. Questionnaire responses were analyzed statistically and qualitatively using Microsoft Office Excel 2016. The analysis was carried out by one member of the team and checked by another to ensure the accuracy and reliability of the findings.

## 3. Results

The response rate to the survey was 90.2% (46/51). Of the respondents, 76.5% (34/46) were female and 23.5% (12/46) were male. The mean age of the respondents was  $20.1 \pm 1.4$  years (18-21 years). Awareness of ChatGPT: Of the 46 students who completed the survey, 97.8% (45/46) were aware of ChatGPT, and only one student was not. Among the 45 students who were aware, 32 learned about ChatGPT from the internet, 11 from classmates or teachers, and two from conferences or lectures. Use of ChatGPT: Among the 45 students who were aware of ChatGPT, 23 used it. 22 students used ChatGPT infrequently ( $\leq 1$  times/week) and one student used it frequently (2-3 times/week). Purposes for Using ChatGPT: 23 students answered questions about their use of ChatGPT. The primary purposes for using ChatGPT were to enhance their learning experience (16 students), for homework (6 students), for chatting (5 students), for essay writing (4 students), and for other purposes (1 student).

## 4. Conclusion

This study provides valuable insights into the awareness and use of ChatGPT among undergraduate nursing students. The results emphasize that the majority of students are familiar with ChatGPT and use it for a variety of purposes, including enhancing their learning experience and assisting with homework. As AI technology continues to develop, its application in healthcare education is becoming more common. Therefore, there is an urgent need for further research to assess the effectiveness of AI tools such as ChatGPT in nursing education and their impact on learning outcomes.

## References

- [1] Liu J, Liu F, Fang J, Liu S. The application of Chat Generative Pre-trained Transformer in nursing education. *Nurs Outlook* 23(2023);71(6):102064.
- [1] Liu J, Wang C, Liu S. Utility of ChatGPT in Clinical Practice. *J Med Internet Res*. 2023;25:e48568.
- [2] Liu S, Wright AP, Patterson BL, Wanderer JP, Turer RW, Nelson SD, et al. Using AI-generated suggestions from ChatGPT to optimize clinical decision support. *J Am Med Inform Assoc*. 2023;30(7):1237-1245. doi: 10.1093/jamia/ocad072.