

## The Impact of ChatGPT on the Healthcare Domain: Perspectives from Healthcare Majors

**Authors :** Su Yen Chen

**Abstract :** Extensive research on ChatGPT has revealed its capabilities and limitations across various clinical, educational, and research contexts, emphasizing crucial issues such as accuracy, transparency, and ethical usage. Studies applying the Technology Acceptance Model (TAM) and Uses and Gratifications Theory have deepened our understanding of the factors that drive user acceptance and satisfaction of ChatGPT for general use. These insights are particularly valuable for examining healthcare-specific behaviors, trust levels, and perceived risks. Despite these advancements, there remains a notable gap in our understanding of how general user perceptions of AI translate into its practical applications within the healthcare sector. This study focuses on examining the perceptions of ChatGPT's impact among 266 healthcare majors in Taiwan, exploring its implications for their career development and utility in clinical practice, medical education, and research. By employing a structured survey with precisely defined subscales, this research aims to probe the breadth of ChatGPT's applications within healthcare, assessing both the perceived benefits and the challenges it presents. The findings from the survey reveal that perceptions and usage of ChatGPT among healthcare majors vary significantly, influenced by factors such as its perceived utility, risk, novelty, and trustworthiness. Graduate students and those who perceive ChatGPT as more beneficial and less risky are particularly inclined to use it more frequently. This increased usage is closely linked to significant impacts on personal career development. Furthermore, ChatGPT's perceived usefulness contributes to its broader impact within the healthcare domain, suggesting that both innovation and practical utility are key drivers of acceptance and perceived effectiveness in professional healthcare settings. Trust emerges as an important factor, especially in clinical settings where the stakes are high. The trust that healthcare professionals place in ChatGPT significantly affects its integration into clinical practice and influences outcomes in medical education and research. Thus, ChatGPT's reliability and practical value are critical for its successful adoption in these areas. However, an interesting paradox arises with regard to ease of use. While making ChatGPT more user-friendly is generally seen as beneficial, it also raises concerns among users who have lower levels of trust and perceive higher risks associated with its use. This complex interplay between ease of use and safety concerns necessitates a careful balance, highlighting the need for robust security measures and clear, transparent communication about how AI systems work and their limitations. The study suggests several strategic approaches to enhance the adoption and integration of AI in healthcare. These include targeted training programs for healthcare professionals to increase familiarity with AI technologies, reduce perceived risks, and build trust. Ensuring transparency and conducting rigorous testing are also vital to foster trust and reliability. Moreover, comprehensive policy frameworks are needed to guide the implementation of AI technologies, ensuring high standards of patient safety, privacy, and ethical use. These measures are crucial for fostering broader acceptance of AI in healthcare, as the study contributes to enriching the discourse on AI's role by detailing how various factors affect its adoption and impact.

**Keywords :** ChatGPT, healthcare, survey study, IT adoption, behaviour, application, concerns

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