



Perceptions and Attitudes of Filipino Pharmacists Towards Artificial Intelligence: Insights into Opportunities and Challenges in Pharmacy Practice in National Capital Region (NCR)

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Abstract

AI has enhanced healthcare and pharmacy efficiency through error reduction and automation, yet its role in the Philippine pharmacy practice remains underexplored. This study aimed to assess the awareness, perceptions, and attitudes of Filipino pharmacists while examining how age, educational attainment, and experience influence these factors. A questionnaire-based crosssectional design was used (n=142) to collect data from pharmacists in NCR to assess the relationship of demographics with the five variables: awareness, perception, attitudes, barriers and challenges, and future perspectives. Spearman Rho was conducted to examine correlation, and SPSS for analysis. Data showed that pharmacists displayed moderate awareness ($\bar{x}=2.76$, $SD=0.64$), positive perception ($\bar{x}=3.12$, $SD=0.55$) and attitude ($\bar{x}=3.00$, $SD=0.55$). The frequently reported challenge was financial investment ($\bar{x}=3.46$, $SD=0.65$), with the least on AI replacing pharmacists' roles ($\bar{x}=2.78$, $SD=0.98$). Moreover, involvement of pharmacists was considered essential in future implementation ($\bar{x}=3.35$, $SD=0.75$). Increased age was associated with fewer perceived challenges ($r_s=-0.278$, $p<0.001$). Educational attainment positively correlated with awareness ($r_s=0.222$, $p=0.008$) and attitude ($r_s=0.196$, $p=0.019$). Meanwhile, years of experience showed significant correlation with challenges and barriers ($r_s=-0.213$, $p=0.011$). The study concludes that Filipino pharmacists in the National Capital Region (NCR) generally exhibit moderate awareness and favorable perceptions and attitudes toward the integration of artificial intelligence (AI) in pharmacy practice. Educational attainment significantly enhances awareness and attitude, while age and experience influence perceived challenges and barriers. Despite the positive outlook, financial constraints remain a prominent

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challenge. These findings highlight the growing receptiveness to AI among pharmacists but underscore the need for supportive infrastructure and continuing education.

Keywords: awareness; challenges; correlation; demographic factors; integration