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KNOWLEDGE, ATTITUDE, AND PRACTICE (KAP) REGARDING THE USE OF ARTIFICIAL INTELLIGENCE IN HEALTHCARE SETTINGS IN PALESTINE

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Abstract

Background: Artificial intelligence (AI) is rapidly transforming global healthcare systems, yet its successful integration relies heavily on the readiness and acceptance of the medical workforce. This study aims to assess the Knowledge, Attitudes, and Practices (KAP) of healthcare professionals in Palestine regarding AI applications, identifying factors influencing adoption and potential barriers to implementation.

Methods: A cross-sectional study was conducted among 119 licensed healthcare providers across various departments in Palestine using a validated, self-administered online questionnaire. The instrument assessed demographic characteristics, factual knowledge, attitudes using a 5-point Likert scale, and practical engagement with AI. Statistical analysis, including Kruskal–Wallis and Chi-square tests, was performed to evaluate associations between sociodemographic variables and KAP metrics.

Results: The findings reveal a predominantly positive outlook toward AI integration. A significant majority (72.3%) agreed that AI improves healthcare development, and 61.4% disagreed with the notion that AI would replace human workers. In practice, 61.3% of respondents reported currently using AI, with 66.4% noting that it eases their workload. Adoption was significantly higher among younger professionals (22–29 years) and those with less than five years of experience ($p < 0.001$). Educational level emerged as a critical determinant; participants holding a Bachelor's degree demonstrated significantly higher knowledge scores ($p = 0.003$) and more positive attitudes ($p = 0.006$). However, a notable gap in ethical awareness was identified, as only 31.1% of participants recognized the potential ethical and privacy challenges associated with AI use.

Conclusion Healthcare professionals in Palestine exhibit strong enthusiasm and active engagement with AI tools, particularly among the younger and academically educated workforce. However, the lack of awareness regarding ethical implications suggests an urgent need for targeted training programs. Strengthening education on AI ethics and data privacy is essential to ensure the responsible and effective integration of these technologies into the Palestinian healthcare system.

Key Words: Artificial intelligence, Healthcare professionals, KAP, Healthcare Systems.