

44. **ATTITUDE, AWARENESS, AND UNDERSTANDING OF ARTIFICIAL INTELLIGENCE AI AMONG MEDICAL AND DENTAL STUDENTS IN JORDAN: A CROSS-SECTIONAL STUDY**

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**BACKGROUND:** The rapid growth of AI has transformed various sectors, including healthcare. AI aids medical diagnoses and treatment planning, but challenges such as privacy and ethical concerns exist. Understanding AI is crucial for medical and dental students in Jordan to enhance patient care. This study examines students' attitudes, awareness, and understanding of AI to inform effective education and better healthcare practices. **METHODS:** A cross-sectional study was conducted in Jordan among medical and dental students from Nov 2022 to Mar 2023. Data were analyzed using descriptive statistics, Mann-Whitney U test, Kruskal-Wallis tests, and Spearman's correlation. Ethical approval was obtained, and SPSS was used for analysis. **RESULTS:** The study involved 800 respondents, predominantly female (54.6%) and with an average age of 19.81 years. Most participants were medical students (64.6%), had a national diploma (75.0%), and were in their first or second year of education (73.1%). The majority were single (97.9%), and 75.1% resided in the central region. In terms of technology background, 38.8% had family members in the technology sector, and half used electronic devices for 3-6 hours daily. Over 75% used electronic devices for studying, while 44.1% had taken technology courses, with only 23.5% having specifically studied Artificial Intelligence (AI). Additionally, 46.0% had prior research experience, but only 18.0% had participated in AI-related research. Participants rated their overall technology knowledge at  $2.91 \pm 1.06$  and AI knowledge at  $2.43 \pm 1.21$ . The main sources of AI information were social media (35.0%). Regarding AI applications, 28.0% believed it would enhance medical diagnosis, while 24.0% expressed concerns about hacking and cybersecurity. Only 10.0% planned to consistently incorporate AI into their future medical practice. Statistical tests revealed significant differences in awareness of AI based on study field ( $p$ -value = 0.034), income ( $p$ -value = 0.028), previous technology involvement ( $p$ -value = 0.004), ICDL course participation ( $p$ -value = 0.02), AI course participation ( $p$ -value < 0.001), and programming language learning ( $p$ -value = 0.001). Similar variations were observed in understanding AI basic principles, with additional significance related to research course participation ( $p$ -value < 0.001). Attitudes toward AI differed only among those with previous technology course involvement ( $p$ -value = 0.037). Spearman's correlation indicated a moderate positive association between awareness of AI in medicine and dentistry and understanding of AI basic principles ( $r$ : 0.491,  $p$  < 0.001). **CONCLUSION:** The younger generation of medical and dental professionals' views AI as a collaborator in their practice. Strong interest and active engagement in AI-related courses highlight the importance of integrating AI education into medical curricula for innovative healthcare practices.