

Knowledge, Attitude, and Practice Related to Potential Application of Artificial Intelligence in Health Supply Chain

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Abstract : The healthcare industry is witnessing a digital transformation, with artificial intelligence (AI) offering potential solutions for challenges in health supply chain management (HSCM). However, the adoption of AI in this field remains limited. This research aimed to assess the knowledge, attitude, and practice of AI among students and employees in the health supply chain sector in Ethiopia. Using an explanatory case study research design with a concurrent mixed approach, quantitative and qualitative data were collected simultaneously. The study included 153 participants comprising students and employed health supply chain professionals working in various sectors. The majority had a pharmacy background, and one-third of the participants were male. Most respondents were under 35 years old, and around 68.6% had less than 10 years of experience. The findings revealed that 94.1% of participants had prior knowledge of AI, but only 35.3% were aware of its application in the supply chain. Moreover, the majority indicated that their training curriculum did not cover AI in health supply chain management. Participants generally held positive attitudes toward the necessity of AI for improving efficiency, effectiveness, and cost savings in the supply chain. However, many expressed concerns about its impact on job security and satisfaction, considering it as a burden. Graduate students demonstrated higher knowledge of AI compared to employed staff, while graduate students also exhibited a more positive attitude toward AI. The study indicated low previous utilization and potential future utilization of AI in the health supply chain, suggesting untapped opportunities for improvement. Overall, while supply chain experts and graduate students lacked sufficient understanding of AI and its significance, they expressed favorable views regarding its implementation in the sector. The study recommends that the Ethiopian government and international organizations consider introducing AI in the undergraduate pharmacy curriculum and promote its integration into the health supply chain field.

Keywords : knowledge, attitude, practice, supply chain, artificial intelligence

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