

Clinical Experience and Perception of Risk affect the Acceptance and Trust of using AI in Medicine

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Abstract : As Artificial Intelligence (AI) is progressively making inroads into clinical practice, questions have arisen as to whether acceptance of AI is skewed toward certain medical practitioner segments, even within particular specializations. This study examines distinct AI acceptance among gastroenterologists with contrasting levels of seniority/experience when interacting with AI typologies. Data from 319 gastroenterologists show the presence of four distinct clusters of clinicians based on experience levels and perceived risk typologies. Analysis of cluster-based responses further revealed that acceptance of AI was not uniform. Our findings showed that clinician experience and risk perspective have an interactive role in influencing AI acceptance. Senior clinicians with low-risk perceptions were highly accepting of AI, but those with high-risk perceptions of AI were substantially less accepting. In contrast, junior clinicians were more inclined to embrace AI when they perceived high risk, yet they hesitated to adopt AI when the perceived risk was minimal.

Keywords : risk perception, acceptance, trust, medicine

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