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Can Standardized Heuristics Reduce Bias and Preserve Clinical Creativity?

Daniela Fishbein
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Background: Heuristics, commonly known for introducing bias, are now being standardized to reduce biases in clinical decision-making (CDM). In a healthcare environment that recognizes the importance of clinical creativity, it remains unclear how standardized heuristics such as the fast-and-frugal model impact creative features of CDM. One framework of CDM, proposed by Engebresten et al., emphasizes the importance of uncertainty and creativity through four aspects: imagination, reflective questioning, understanding and critical judgment.

Objectives: Using the fast-and-frugal model as an example, we investigate the role that standardized heuristics play in a CDM framework that emphasizes uncertainty and creativity over the standardization of evidence-based medicine (EBM). The second objective of this paper is to evaluate and clarify the framework presented in Engebresten et al.

Methods: This paper explores how the fast-and-frugal model impacts Engebresten et al.'s CDM framework by investigating the differences between heuristics and EBM, as well as how each are used in practice.

Results: We argue that the fast-and-frugal model does not directly affect imagination, reflective questioning or understanding because initial assessments conducted by the clinician remain unchanged. However, standardized heuristics restrict critical judgment, but only in certain decision-making environments. Finally, we argue that one important difference between EBM and heuristics involves their scope; while standardized heuristics are only used in certain environments, EBM is intended for universal decision-making environments.

Discussion: While standardization in EBM restricts clinical creativity and uncertainty on Engebresten et al.'s account, we argue that standardized heuristics can largely preserve the creativity and uncertainty described.