Systematic review

Cognitive bias is a crucial factor in nurses' decision making

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Eoin D O'Sullivan

Correspondence to: Dr Eoin D O'Sullivan, Kidney Health Service, Royal Brisbane and Women's Hospital, Brisbane, Queensland, Australia; eoindosullivan@gmail.com

Commentary on: Thirsk LM, Panchuk JT, Stahlke S, *et al*. Cognitive and implicit biases in nurses' judgment and decision-making: A scoping review. *Int J Nurs Stud*. 2022 May 24;133:104284. doi: 10.1016/j.ijnurstu.2022.104284

Implications for practice and research

► Nursing staff should be aware of the risk of cognitive and implicit bias in decision making, and appreciate factors, which can contribute to bias.

► There is a need for pragmatic, real-world research to better understand bias in nursing, and to test debiasing interventions in clinical practice

Context

Cognitive biases are innate mental short cuts or systematic errors occurring during decision making that lead to incorrect decisions.[1] Cognitive bias negatively impacts clinical decision making and contributes to poor health outcomes. There is an increasing interest in cognitive bias and related interventions, but the majority of research has focused on physicians as decision makers. Thirsk *et al* describe the extent of the literature on cognitive bias in nursing practice, identify shortcomings in the scope and methods of existing data, and describe an important knowledge gap surrounding interventions to support debiasing nurses decision making.[2]

Methods

The authors employed a scoping review methodology to describe the literature surrounding cognitive and implicit bias in nursing practice. The review focused on documenting the extent of biases described, the associated clinical decisions and interventions used to mitigate against such bias.

A scoping review was chosen as an appropriate tool to determine the extent of the literature to map the volume, quality and nature of evidence, as well as identify knowledge gaps. The authors felt, appropriately, that given the emerging nature of the data, the more rigid structure of a formal systematic review may be too restrictive and fail to give a holistic picture of the field.

Findings

Following the screening, the literature search generated 77 studies appropriate for inclusion. Seventy-six per cent (n=56) of the studies were quantitative in nature, yet only one in five studies used real world data, the remainder relying on simulations, vignettes or recollection exercises.

Cognitive biases were described frequently in nursing practice, including biases common to the broader healthcare literature such as anchoring, confirmation and attribution bias. Implicit bias was similarly common although there were numerically few studies describing this. Only five studies were found, which attempted interventions to improve bias, with either ambiguous results or without meaningful assessment of the intervention.

Commentary

Nursing decision density is high so it is likely that over hundreds of clinical decisions made each day, bias will impact almost all nurses' practice.[3] Thus, it is not surprising that nurses face the same cognitive challenges as other decision makers in healthcare. In the absence of robust data on debiasing strategies, it is worth reflecting on factors which increase the chances of a cognitive bias occurring—fatigue, lack of experience, decision fatigue, stress and distractors. An uncomfortably familiar list for many clinical staff, yet crucial to remember the real factors that can be tackled today while we wait for the research of tomorrow.

The authors uncover a lack of real-world experimental design, highlighting key challenges in the field. It is difficult to study the nature of thoughts in real time, records of clinical decision making are often incomplete, missing context and inscrutable shadows of the decision in question. Further, decision-makers are highly heterogeneous and inconsistent as a group, even on the same shift. Hence, interventional studies have tended to be of smaller groups with synthetic patient data, ad hoc interventions with non-generalisable outcomes.[4]

Educational interventions can be effective for example, but it is unclear what form they should take. Should they be integrated into undergraduate teaching or discrete modules later? How context specific they should be? Should they involve real-world patients? Do we need updates and refresher teaching? How do we measure their impact? These important questions highlight our uncertainties surrounding even the simplest of interventions.

Despite the dearth of interventions highlighted by the authors, it is important to remember Carl Sagan's aphorism, 'the absence of evidence is not evidence of absence.' This is key area of clinical research which demands pragmatic and thoughtful experimental design to meet the knowledge gap the authors have identified. Future work would benefit from a multidisciplinary approach as it is likely that much value can be brought by psychologists, human factors experts, the wider healthcare team and patients.

Twitter Eoin D O'Sullivan @eoinreal

Competing interests None declared.

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ORCID iD
Eoin D O'Sullivan http://orcid.org/0000-0002-7709-6595

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