

Thinking on the Front Line: Understanding Resident Decision Making in Clinical Practice

Introduction: Clinical reasoning is foundational to medical practice, but the cognitive processes involved have been difficult to elucidate. Attention has been paid to cognitive biases and their role in diagnostic errors, but less attention has focused on the processes underlying successful diagnosis. We aimed to elucidate the factors associated with successful resident physician clinical decision making to support clinical reasoning in training programs.

Methods: We applied a qualitative research framework based on grounded theory. We interviewed 11 postgraduate year 2 internal medicine residents, probing their descriptions of successful diagnoses. Data collection and analysis occurred in an iterative fashion and a constant comparison process was employed for analysis. Identified themes were used to develop theory regarding resident physician clinical reasoning.

Results: We identified 4 major themes. Resident attitude, clinical skills, and thorough assessment contribute to their diagnostic success (Mechanics). This is further facilitated by resident factors (curiosity, sense of duty, level of training) and contextual factors (timing of assessment, validation by colleagues; Facilitators). Experience with successful decision making contributes to increased confidence in their abilities and perceived improved reasoning (Outcomes), and we also identified barriers to diagnostic success (Barriers).

Conclusions: There are specific methods used by residents to achieve diagnostic success that incorporate the CanMEDS roles of Medical Expert, Professional, and Scholar. Residents reflect on successes to further improve their clinical competence. This process occurs independently of their training program or supervising physician. Future studies should explore whether application of these methods and minimizing the identified barriers improves diagnostic success.

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