

What and how advanced medical students learn from reasoning through multiple cases

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What and how advanced medical students learn from reasoning through multiple cases

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Abstract The study reported in this article concerns the questions what and how fourth- year medical students can learn from a series of cases that have a similar underlying problem. This question is crucial in the theoretical sense as it looks at mechanisms of updating and improving knowledge structures, which are conjectured to consist of 'illness scripts', which integrate knowledge about enabling conditions for a disease, the underlying fault, and the consequences or signs and symptoms of the disease. It was found that much learning was implicit, whilst students explicitly paid attention to variations in enabling conditions and consequences, which led to improvement of these knowledge components. Integration of biomedical knowledge into the fault component was, however, hampered by lack of knowledge and by misconceptions that students were unable to debug in the absence of learning resources or detailed feedback. The practical importance of this study stems from its close parallels to the learning situation in clinical practice, where patients (or cases) are the most important learning resources, whilst feedback on results is often minimal. Implications and possible solutions for clinical teaching are discussed.

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