Medical education should teach heuristics rather than train them away

Ample research has shown that heuristics result in errors as defined by logic and probability theory. Yet, in everyday work contexts heuristics are often the basis of expert decision making. Whereas traditional pedagogies aim at circumventing heuristics, the authors elaborate what it takes to improve clinicians’ use of heuristics and teach them how to make ‘smart’ mistakes rather than ‘dumb’ ones. Three teaching formats are discussed with guidance provided regarding how to best implement them based on the study’s findings.


Prevalence of depressive symptoms among medical students

An overview of systematic reviews was conducted to examine the prevalence of depressive symptoms among medical students. A total of 249 primary studies involving 162 450 medical students were used in updating the meta-analysis. It was found that the pooled prevalence was 27.0% (95% CI: 24.7–29.5%), with the lowest and highest prevalence observed in the Western Pacific region (20.1%) and Africa (41.0%), respectively. The top factors significantly associated with depressive symptoms included gender, year of study, personal issues, family relations or issues, and health status.


The power of simulation

Simulation is often considered to be ‘powerful’ – but what does this really mean? This study analysed health professionals’ narrative reflections regarding powerful learning experiences with simulation. Many narratives had recurring features: they were set early in training; involved dramatic scenarios; invoked high emotions and on-going reflections; concerned ‘things that went wrong’. Power was most frequently found in increasing knowledge, skills and attitudes, but also through different ways of seeing the world and through mirroring clinical practice. On occasion, participants reported humiliating experiences, where learning did not take place. This study suggests that the power of simulation is a holistic phenomenon that spans modalities and approaches. The authors conclude that simulation affords an opportunity to manage ‘things going wrong’ as part of professional practice.


Effects of deliberate reflection

Deliberate reflection can enhance learning from clinical cases. The reasonable assumption that reflection enhances interest in learning more about a topic and, therefore, fosters learning, still requires empirical evidence. In this experiment with 4th-year medical students, those who solved clinical cases through deliberate reflection (comparing and contrasting clinical findings with diagnoses) spent more time studying the cases and learned more about them relative to those who worked with a more conventional approach. The deliberate reflection procedure used is simple, efficient and can help medical teachers motivate students to engage in learning activities and expand their knowledge.