

To the Editor: The Adaptive Expertise Improved by 1-Day Workshop With Embedded Curriculum to Teach Critical Incident

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The research conducted by Wykowski et al was of great interest to us.¹ The authors reported the 1-day effectiveness of a 1-hour workshop teaching internal medicine residents an efficient approach to leading team debriefs after emotionally charged clinical events. The current research used the STREAM (Structured, Timely, Reflection, tEAM-based) framework, a 6-step debriefing framework a trainee can complete as a 15-minute structured approach to leading a debrief.¹ The workshop was embedded on the first day of an inpatient rotation. The facilitators met for 1 hour to discuss the materials and ask questions, and each facilitator observed a session before leading debriefs. Before and after the workshop, the facilitators reviewed preliminary survey data and shared best practices. In addition, the workshop uniformly questioned the reflection of the trainee regarding their previous experience, positive or negative, and their participation in debriefs after critical events. Results showed that this 1-day workshop improved the residents' self-reported preparedness in leading debriefs after critical events. The pre-post assessment of the workshop showed more participants having a structured approach, preparedness, time, and plan to lead debriefs, further responding to participants' emotions during debriefs.

Complexity exists in the care of individual patients, and clinical reasoning, which significantly underlies the diagnostic process, is remarkably complicated when it comes to critical events, which are ubiquitous in medicine, from the emergency department to the operating room. Thus, adaptive expertise is needed as an essential competency to learn in medical school.^{2,3} Adaptive expertise emphasizes the flexible use of knowledge as well as the ability to generate new solutions and learn from daily problem-solving in critical clinical decision-making processes. Furthermore, adaptive expertise requires multiple perspectives to appreciate

the connectivity between critical thinking skills, meta-cognitive processes such as reflection and mindfulness, efficiency of thought, flexibility, and innovation. Active engagement with these factors is needed to reach a comprehensive skill level that demonstrates a broad understanding of core concepts as well as the ability to transfer and apply concepts learned in one context to other contexts and novel situations.^{3,4}

The recent research from Wykowski et al gives an insight into the importance of adaptive expertise in medical education curricula to expand training to other specialties and clinical settings. Medical educators need to train residents on critical thinking and problem-solving skills in clinical judgment, which are needed to learn from mistakes and make better judgments. Moreover, metacognition, especially reflection and mindfulness, along with innovation and creativity in interdisciplinary relationships, are also crucial for medical educators to raise adaptive expertise.⁵ Ultimately, we wish to embed adaptive expertise in the medical education curriculum at the Faculty of Medicine, Universitas Andalas, Indonesia, by introducing the STREAM framework as current research to our year-end clinical rotation with critical debrief scenarios such as debriefs after experiencing a patient death or cardiac arrest, so that all physicians in leadership roles have the skills to lead critical event debriefs.

References

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