Case Based Assessment (CBA): Effects on Adult Learning Behaviors, Metacognition, and Transfer of Learning

Abstract Type: Original Research
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Introduction: Implementing new education activities demands purposeful planning & careful assessment of outcomes to ensure both effectiveness & efficiency. Increasingly recognized is the need to develop and assess self-directed learning habits, metacognitive skills, and ability to transfer learning to different situations, as well as pedagogies designed to achieve these goals (Cooke 2010). This study examines resident perceptions of effects of participation in Case Based Assessment (CBA) on these learning aims.

CBA involves mentored, learner-selection of a complex case, generation of detailed learning objectives, collection & synthesis of relevant evidence, production of written case brief, and a 1-hr presentation to faculty assessors, who give immediate verbal & written feedback. Piloted in 2006, CBA was implemented for OB anesthesia residents in 2009. 66 CBAs were conducted from Apr 2009 - Dec 2010.

Methods: Residents were contacted by e-mail, and asked to complete an anonymous survey evaluating their CBA experience. 11 open ended questions, plus demographic data. Current residents who had participated were contacted, as were recent graduates (with contact info). Survey period: Nov 5 - Dec 15, 2010. Data were analyzed only after survey period concluded. Analysis included thematic coding of responses & identifying dominant themes related to behavioral descriptions Analysis was facilitated by qualitative data management software (NVivo9, QRS Internat'l Pty Ltd).

Results: Completion rate was 26/32 (81%). Themes, numbers of coded references & respondents, and representative excerpts are presented (table). There was strong evidence of self-reported positive effects on development of cognitive/verbal & research/analysis skills, self-ownership of learning, reflection/self-assessment, improvement, and transfer of these skills/behaviors beyond the immediate learning activity.

Discussion: The results are consistent with essential resident education aims – development of practice-/case-based learning, and interpersonal & communication skills (ACGME core competencies), as well as self-direction in learning activities, reflection, and metacognitive awareness (Cooke 2010). Limitations include the self-reported perception nature of survey, but this is counterbalanced by abundant behavioral descriptions (versus general opinion) provided by respondents.