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A Fresh Approach to Learn Evidence-Based Practice, a Prospective Interventional Study

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Abstract : Background: For more than 200 years, journal clubs (JCs) have been used to teach the fundamentals of critical appraisal and evidence-based practice (EBP). However, JCs curricula face important challenges, including poor sustainability, insufficient time to prepare for and conduct the activities, and lack of trainee skills and self-efficacy with critical appraisal. Andragogy principles and modern technology could help EBP be taught in more relevant, modern, and interactive ways. Method: We propose a fresh educational activity to teach EBP. Educational sessions are designed to encourage collaborative and experiential learning and do not require advanced preparation by the participants. Each session lasts 60 minutes and is adaptable to in-person, virtual, or hybrid contexts. Sessions are structured around a worksheet and include three educational objectives: “1. Identify a Clinical Conundrum”, “2. Compare and Contrast Current Guidelines”, and “3. Choose a Recent Journal Article”. Sessions begin with a short presentation by a facilitator of a clinical scenario highlighting a “grey-zone” in pediatrics. Trainees are placed in groups of two to four (based on the participants’ number) of varied training levels. The first task requires the identification of a clinical conundrum (a situation where there is no clear answer but only a reasonable solution) related to the scenario. For the second task, trainees must identify two or three clinical guidelines. The last task requires trainees to find a journal article published in the last year that reports an update regarding the scenario’s topic. Participants are allowed to use their electronic devices throughout the session. Our university provides full-text access to major journals, which facilitated this exercise. Results: Participants were a convenience sample of trainees in the inpatient services at the Montréal Children’s Hospital, McGill University. Sessions were conducted as a part of an existing weekly academic activity and facilitated by pediatricians with experience in critical appraisal. There were 28 participants in 4 sessions held during Spring 2022. Time was allocated at the end of each session to collect participants’ feedback via a self-administered online survey. There were 22 responses, were 41%(n=9) pediatric residents, 22.7%(n=5) family medicine residents, 31.8%(n=7) medical students, and 4.5%(n=1) nurse practitioner. Four respondents participated in more than one session. The “Satisfied” rates were 94.7% for session format, 100% for topic selection, 89.5% for time allocation, and 84.3% for worksheet structure. 60% of participants felt that including the sessions during the clinical ward rotation was “Feasible.” As per self-efficacy, participants reported being “Confident” for the tasks as follows: 89.5% for the ability to identify a relevant conundrum, 94.8% for the compare and contrast task, and 84.2% for the identification of a published update. The perceived effectiveness to learn EBP was reported as “Agreed” by all participants. All participants would recommend this session for further teaching. Conclusion: We developed a modern approach to teach EBP, enjoyed by all levels of participants, who also felt it was a useful learning experience. Our approach addresses known JCs challenges by being relevant to clinical care, fostering active engagement but not requiring any preparation, using available technology, and being adaptable to hybrid contexts.

Keywords : medical education, journal clubs, post-graduate teaching, andragogy, experiential learning, evidence-based practice

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