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NEW IDEAS IN B-E-D-SIDE TEACHING

Teacher as scribe: A novel way to augment direct observation in the emergency department

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BACKGROUND

Although historically underutilized, direct observation (DO) represents a key component of competency-based medical education by facilitating work-based assessment, timely and focused feedback, and bedside teaching.[1,2] In one study, half of emergency medicine (EM) residents recalled three or fewer faculty-observed histories and physical examinations (H&P).[3] Barriers to DO in the emergency department (ED) include the fast-paced, unpredictable nature; high volume; and patient acuity.[4]

In the traditional ED encounter, the learner (i.e., resident or medical student) evaluates the patient and presents the H&P and assessment and plan (A&P) to the attending physician (i.e., teacher). The teacher subsequently evaluates the patient, provides feedback, and modifies the plan as needed, with little opportunity for DO. Repetition of the H&P may contribute to increased length of stay associated with learner presence in some studies.[5,6] Alternative models include "swarming," whereby multiple team members simultaneously evaluate the patient and the "parallel encounter," whereby learner and teacher independently evaluate the patient and jointly formulate the A&P.[7,8] Herein, we describe the "teacher-as-scribe" model (TASM), which incorporates DO and may improve efficiency (Figure 1).

EXPLANATION

The teacher describes TASM benefits and components to the learner in advance. The learner briefly reviews the patient's chart. The learner and teacher enter the room together. The teacher states their roles to the patient and explains that he or she will listen, may ask questions, and may potentially modify the plan at the end. The learner then performs the H&P while verbalizing findings and explains the A&P to the patient. The teacher directly observes and simultaneously cross-references the chart, inputs the H&P and initial A&P, and orders verbalized by the learner (Figure 1). The teacher shares the note for the learner to complete and provides feedback after exiting.

DESCRIPTION

Potential TASM benefits include eliminating separate evaluations, reducing time to order entry and results, and facilitating real-time documentation. Similar to "swarming," it generates a shared mental model, with the added advantage of timely documentation.[7] In contrast to the "parallel encounter," the teacher performs DO while similarly focusing on A&P.[8] It incorporates components valued by learners including

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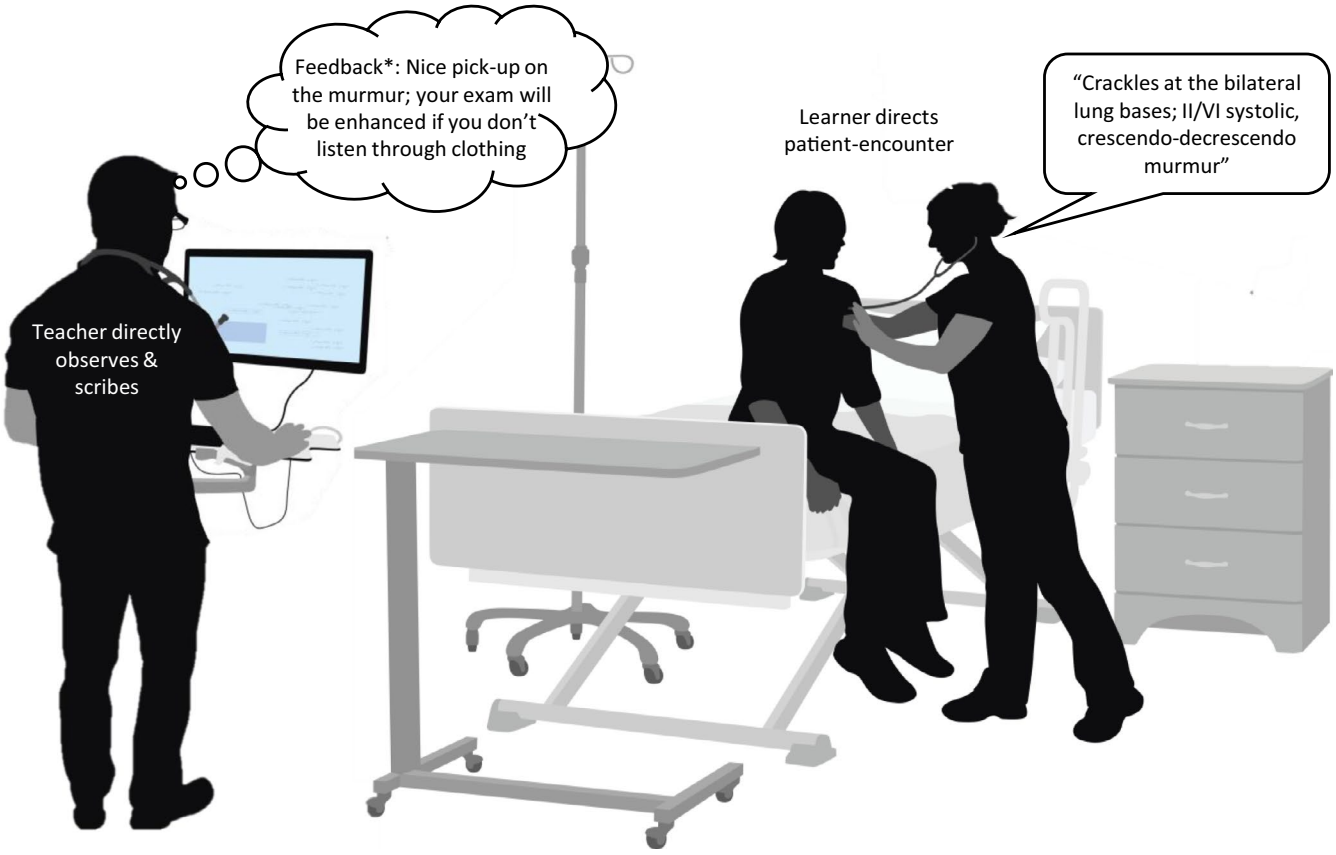

*Teachers should tailor feedback to learner level. For medical students, focus on history, physical exam, and basic communication skills. For interns and senior emergency medicine residents, focus on diagnostic reasoning, medical decision making, and nuanced patient communication.

FIGURE 1 Teacher as scribe encounter

feedback, tailored teaching, and teachable moments.[9] The teacher can model behavior, demonstrate techniques, and provide indirect feedback through follow-up questions or examination maneuvers at the end. Teachers on rounds or in clinics can also apply the TASM. Teachers with contraindications to evaluating COVID-19 patients can employ TASM remotely with video conferencing.

Potential pitfalls include learner apprehension about being watched or suggesting a plan to the patient prior to discussion with the teacher. To foster psychological safety, teachers must prebrief learners to pause if needed with the statement: "we will discuss your case and return to share our assessment and plan." A prompt, private discussion requires time outside the room, but can expedite nuanced care and collaborative problem-solving. To avoid sacrificing learner autonomy, teachers must avoid unnecessary interjections. Additionally, those skeptical may desire objective supporting data prior to adopting change.[10] Accordingly, future studies will investigate the TASM's impact on learner, teacher, and patient satisfaction; time to order entry and chart completion; errors; and throughput.

AUTHOR CONTRIBUTIONS

The acquisition of data, analysis and interpretation of the data, and drafting of the manuscript were performed by Mallory G. Davis, Michelle Daniel, Hayley E. Andre, and Mary R. C. Haas. Critical revision of the manuscript for intellectual content was performed by Mallory G. Davis, Michelle Daniel, Hayley E. Andre, and Mary R. C. Haas.

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