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Authors

Jennings, Lindsey
McKittrick, Justine
Rodriguez, Katherine
et al.

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38 From Outcomes to Insights: A Structured Reflection Tool for Practice-Based Learning and Improvement

Kathryn Ritter, Kathryn Lorenz, Michael Ehmann, Haleigh Ferro, Sarah Hill-Yeterian, Jeremiah Hinson, Linda Regan, Kamna Balhara

Background: To optimize skills in Practice Based-Learning and Improvement (PBLI), residents should have access to their patient outcomes data. Prior research demonstrates that automated patient outcome feedback increases electronic health record (EHR) re-access by residents, but outcomes data alone may be insufficient to promote reflective practice. Residents may benefit from a format for structured reflection upon those outcomes.

Objective: We developed a longitudinal tool grounded in narrative writing with structured prompts to bridge outcomes data with resident reflection ("Growth Charts"). We describe residents' experiences with Growth Charts and analyze the tool's impact on PBLI through qualitative analysis.

Methods: Six PGY1-4 Emergency Medicine residents at a single academic program participated in a 12-month pilot. Residents analyzed their personalized outcomes on a digital platform, Linking Outcomes Of Patients (LOOP), which tracks unanticipated return visits ("bouncebacks"), inpatient level-of-care escalations, and deaths. Participants then responded to Growth Chart prompts with written reflections on factors contributing to reported outcomes and intended practice modifications. Semi-structured interviews with residents about their experience with Growth Charts and LOOP data were qualitatively analyzed via an inductive approach and grounded theory.

Results: Six key themes emerged (Table 1). All participants reported that LOOP provided valuable information and several expressed that using data enhanced reflection quality. One participant stated, "My reflections wouldn't have been as robust without [LOOP]." Participants reported that structured reflections led to practice change (e.g., adjusting discharge instructions to prevent bouncebacks and increasing confidence when advocating for level-of-care decisions).

Table 1. Categorized themetic analysis from participant semi-structured interviews. *Codes regarding the Growth Chart; #Codes regarding LOOP; ^Codes reagrding LOOP and Growth Chart together.

Theme	Codes	Representative Quotes
Goal setting	Benefit of written record*	"Having all the rotations in the same document allowed me to look back [at] other things that I was working on earlier."
	Benefit of goal setting^	"It was nice to think about where I'm going, where I've been, especially with all of the data that I have, and how I want to get to where I want to be."
Benefit of reflective practice	Valuable adjunct to biannual reviews with program directors^	"And I think those [LOOP and Growth Charts] help[ed] me kind of anchor in individual practice goals and who I want to be as a physician. And kind of drive some of those conversations in a way that I don't know if I would have been as focused on, or as cognizant of, without the LOOP data and the narrative reflections."
	Valuable practice for emotional processing^	"I think anytime you're intentionally reflecting. It's gonna change how you behave and [have] small micro interactions...in the daily workspace."
Format & content of Growth Chart	Personal preference for reflective practice^	"I feel like when you write something down it solid[ifies]...and allows you to tackle some...of the reality [of] what you're putting in your head, [by]...putting it into speech."
	Redundancy of phrasing of questions^	"I think some of the questions were a little redundent sometimes...I would just eventually be like, 'See that answer,' especially towards the end of the year."
	Formatting of Google document^	"I think it was on a Google document. I'm wondering if just making it on One Drive might be easier to access because I had to keep searching for the Google document link."
Barriers to consistent use	Inaccessibility of LOOP#	"Usually to access LOOP, we'd have to be on the VPN. That was a bit of a challenge or a barrier"
	Lack of motivation^	"It was really just the buy-in, and I feel like should the buy-in have been influenced by a requirement to do it or some kind of carrot to do it? But ultimately the buy-in ended up being influenced by the experience with it."
	Less useful for off-service rotations#	"It would have been interesting to see my bounceback rate [on those off-service rotations]...in theory, it could have been useful."
Benefit of objective data	Valuable patient care follow-up information#	"I think one of the best parts of LOOP was seeing the bouncebacks, and I think you didn't get a good handle on that end of the spectrum prior to using LOOP[, and one could argue, that's kind of the most relevant area for improvement."
	Enhanced quality of reflections#	"It allowed to me to be grounded in objective data...I think it actually foster[ed] the reflection, because I feel like my reflections wouldn't have been as robust without the LOOP data."
Clinical practice change	Confirmation of current practice*	"Data allowed you to feel strong in your decision making of appropriate level of care decisions that was happening based off of good clinical practice."
	Change in discharge planning*	"[The data led me to think] should I have changed my discharge instructions? Do I need to have a more in depth conversation with this patient, and anticipate a return?"
	LOOP data resulted in practice change*	"Prescribing habits were definitely influenced by the LOOP data...and the emphasis on care transitions was very much influenced by the LOOP data in terms of the bouncebacks."

Conclusion: Growth Charts to bridge EHR-derived outcomes data with structured reflection may foster PBLI by facilitating reflective practice.

39 Improving the Evaluation and Feedback Process in an Emergency Medicine Residency Program

Lindsey Jennings, Justine McKittrick, Katherine Rodriguez, Alexander Howard

Background: To improve the volume of written feedback and evaluations at our institution, we made several changes to our emergency medicine resident evaluation process. These changes included: 1) shortening the number of questions asked on our resident evaluation form from 23 questions to 4 questions , 2) utilizing an entrustable professional activities (EPA) framework for evaluations, and 3) adding completion of resident evaluations to the bonus pay structure for faculty.

Objectives: The purpose of this study assess for changes in 1) resident perceived quality of feedback , 2) attending perceived quality of evaluation forms, and 3) the number of evaluations completed by faculty before and after the intervention.

Methods: This study included 2 components: 1) a prospective survey study that assessed resident and faculty satisfaction with our evaluation system before and after the intervention, and 2) an observational prospective study examining the number of written evaluations completed by attending physicians before and after the intervention. Surveys assessed the quality of feedback provided from the evaluation system using a 5-point Likert scale. All emergency medicine residents (n=30) and faculty (n=35) were eligible for participation. The number of evaluations completed pre-intervention (4/15/2024-7/14/2024) and post-intervention (7/15/2024-10/14/2024) were obtained from our evaluation software, MedHub. Descriptive statistics were utilized.

Results: 15 residents (50%) and 20 (57%) attendings completed the pre survey. 13(43%) residents and 16 (46%) attendings completed the post-survey. There was an increase in residents reporting feedback was actionable (47% to 69%), and a decrease in the percentage of residents who reported vague feedback (47% pre, 23% post). There was an increase the percentage of faculty who felt the questions asked on evaluations were relevant (30% pre, 86% post). There were 115 evaluations completed in the pre-intervention period,

and 357 in the post-intervention period, resulting in a 210% increase in the number of evaluations completed.

Conclusions: The described intervention significantly increased completion of resident evaluations during the study period. Limitations include a short study period and low survey response rates.

40 It's Scarlet in the Study! Deciphering Toxic Pathologies in a Murder Mystery Party

Michael DiGaetano, Colleen Donovan, Aarsh Shah, Denise Fernandez

Background: Gamification in medical education enhances engagement and learning, but applications for toxin education in EM residency are limited. Our project introduces a "whodunnit" gamified approach to teach EM residents about toxic pathologies, combining storytelling with diagnostic skills. This method addresses an educational gap by embedding toxicology within an interactive mystery.

Educational Objectives:

- Improve clinical reasoning and toxidrome identification via casework
- Engage teams in an exciting and collaborative "whodunnit" setting
- Integrate wellness/team building into core toxicology content

Curricular Design: We chose three complex toxidromes (carbon monoxide, cyanide, and sodium nitrite) as anchors for our "murders." Set in a fictional town, participants were prebriefed on rules and character profiles (created using generative AI). Three individuals were chosen as "murderers" and only given knowledge regarding their specific toxidrome. Participants were divided into three teams and given 20 minutes to uncover method, motive, and murderer (3Ms) by sifting through physical evidence boxes with "autopsy reports" and toxidrome clues. Teams debated and defended their 3M accusations in an open forum, with a final debrief and review of key toxidromes. Residents completed pre- and post-tests on toxicology topics without specifying game details. They also gave feedback on the game as an educational tool in a post-game survey.

Impact/Effectiveness: There are no published murder mystery-style learning activities in EM residency didactics. This approach yielded a 16.7% increase in toxin knowledge, with PGY2s showing the most improvement in confidence and knowledge. All participants agreed that this session improved toxidrome knowledge and was a good use of their educational time, with 69.6% and 78.3% strongly agreeing, respectively. Future session plans include smaller groups and more toxidromes. This project shows an engaging model with replication potential for EM programs.

41 Assessing Structural Competency Using ACGME Milestones: Uncovering Challenges and Needs

Ridhima Ghei, Taylor Extavour

Background: Efforts to improve cultural competency in Emergency Medicine (EM) residency training have evolved over time. In 2008 and 2011, leaders advocated for curricula that addressed diversity, cultural competence, and implicit bias. By 2020, critiques of traditional approaches prompted a shift toward 'Structural Competency,' which emphasizes the societal factors impacting health. The 2021 ACGME Milestones overlap with this mission, especially in Interpersonal and Communication Skills 1 (ICS1) and Systems-Based Practice 3 (SBP3). However, assessing these competencies remains challenging, underscoring the need to understand current practices in order to guide future training.

Objective: This study explores how EM program leaders assess ACGME milestones ICS1 and SBP3, hypothesizing that variations in methods and subjectivity affect residents' educational outcomes. Methods: A focus group was conducted with EM program directors (PDs) and assistant PDs to discuss ICS and SBP milestone assessment practices. Purposive sampling ensured diverse representation in terms of gender, location, and program length. Questions focused on assessment techniques, milestone expectations, and educational initiatives. Two investigators inductively analyzed the transcript, with discrepancies resolved through discussion.

Results: Participants reported varied assessment tools, including shift evaluations, simulation, and faculty/patient feedback, which were compounded by subjective interpretations of milestones and scores simply based on training year. Recommendations included enhanced faculty development around assessment and more standardized processes.

Conclusions: Findings suggest EM residency leaders face challenges and ambiguity in assessing ACGME competencies. Standardizing evaluation processes and establishing guidelines may improve milestone score accuracy and reliability. Clarities around assessment can subsequently guide educational initiatives around structural competency.

42 Job Placement and Satisfaction among Emergency Medicine Residency Graduates

Brian Milman, Stephanie Stroever, Mary Edens, Fiona Gallahue, Michael Kiemeney, Albert Kim, Miriam Kulkarni, Andy Little, Anthony Sielicki, James Morris

Background: Prior Emergency Medicine (EM) workforce studies projected a future surplus of EM physicians, raising concerns about job prospects for EM trainees. The projected