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Guided Imagery: An adjunct to teaching central venous access

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Best Of Best Research Abstracts

# 1 A National Survey of Emergency Medicine Medical Education Fellowship Directors: Roles, Responsibilities, and Priorities

Andrew Golden, David Diller, Jeff Ridell, Jaime Jordan, Mike Gisondi, James Ahn

**Learning Objectives:** The goal of this study is to characterize the roles, responsibilities, and support for MedEd fellowship directors.

**Introduction:** Despite Medical Education (MedEd) Fellowships increasing in number, the position of MedEd fellowship director remains poorly defined.

**Methods:** We developed and piloted an anonymous electronic survey, consisting of 32 Likert-type and free response items, that we distributed via the CORD MedEd Fellowship Community of Practice listserv. We used descriptive statistics to analyze data from items with discrete answer choices. Chi-squared testing was used to evaluate differences between programs. Using a constructivist paradigm, we performed a thematic analysis of free response data.

**Results:** Thirty-five of 44 MedEd fellowship directors (80%) completed the survey. Thirty-seven percent of respondents were female (13/35). Fifty-one percent earned Master’s degrees in education and 37% completed a MedEd fellowship. Many respondents held other education leadership roles, including program director (PD) (26%), associate/assistant PD (26%), vice chair (23%), and clerkship director (9%). Sixty-three percent (22/35) receive support, including clinical buy-down (18/22, 82%), administrative (11/22, 50%), and salary (1/22, 5%). There was no difference ( $X^2(2, N=33) = 2.07, p = 0.36$ ) between support and type of hospital (community, academic, or county). Responsibilities of MedEd fellowship directors include education (median 35% of time), administration (25%), research mentorship (20%), and recruitment (14%). Priorities of MedEd fellowship directors fall into three categories, including fellow, fellowship, and institution (Table 1). Factors promoting and inhibiting

Table 1. Priorities of MedEd Fellowship Directors.

Fellow
- Promote development as educator
- Promote development as scholar
- Promote development as leader
- Advocate for fellow's salary, CME, wellness
- Facilitate job opportunities/success
- Individualized education based on fellow's interests
Fellowship
- Recruit high-quality fellows
- Ensure high-quality, innovative curriculum
- Obtain financial support
Institution
- Increase education scholarship within department
- Growth of department's education faculty

success of fellowship programs are presented in Table 2.

**Conclusions:** This study provides insight into the position of the MedEd fellowship director. We hope it will allow for role clarity as well as national and local advocacy as the demand for MedEd fellowship directors increases.

Table 2. Factors enabling and inhibiting success of MedEd Fellowship Directors.

Common Factors Enabling Success of MedEd Fellowship Directors
1. Invested departmental leadership, including Chair and Vice Chair
2. Motivated fellows
3. Support for the role, including shift buy-down
4. Support for the fellowship, through funding and faculty willing to mentor fellows
5. Perseverance
Common Barriers of MedEd Fellowship Directors
1. Limited or no support for the role, including shift buy-down and administrative support
2. Limited financial support for the fellowship and fellows
3. Time pressures of a one-year fellowship
4. Lack of experience/responsibility within the training continuum (i.e. UME, GME, CME)

# 2 Guided Imagery: An adjunct to teaching central venous access

Sydney Cryder, Stephen Jensen, Matthew Hysell, Joseph McCarthy, Kristen Whitworth

**Learning Objectives:** Introduce guided imagery as a novel approach to education and simulation in graduate medical education.

**Background:** Guided imagery is commonly used in sports psychology for post-injury rehabilitation, rep-max movements, and muscle activation as part of a multifaceted approach to learning. Utilization of guided imagery combined with traditional teaching may provide an innovative and comprehensive approach to graduate medical education.

**Objectives:** To show greater proficiency in medical students’ ability to obtain central venous access in simulation trainers following exposure to guided imagery teaching methods in comparison to traditional methods.

**Methods:** Auditioning fourth year medical students were offered the opportunity to participate. They were randomly assigned to two groups, traditional teaching or guided imagery teaching. The traditional teaching group watched a video using traditional methods. The guided imagery group watched a video which also incorporated visualization components, and biofeedback. Proctors blinded to student group assignment then observed each student place an intrajugular triple lumen catheter on a simulation trainer and filled out a standardized rubric. Additionally, participants

filled out survey questions before and after the video and again after line placement.

**Results:** A total of 60 medical students participated; 2 were excluded for having performed 5 or more lines previously. There was no difference in the two groups in self perceived competence prior to watching the video or in the number of lines they had previously performed. The traditional group (n=33) averaged 2.2 errors/need for intervention whereas the guided imagery group (n=25) averaged 1.3 errors/need for intervention (p=.045, 95%CI 0.02 to 1.61). There was no statistical significance in total time or in students' self-rated confidence post this experience.

**Conclusion:** The use of guided imagery may be a promising adjunct to traditional teaching methods for procedures in graduate medical education.

### 3 Impact of Faculty Incentivization on Completed Resident Evaluations

*Viral Patel, Alexandra Nordberg, Jennifer Carey, Richard Church*

**Learning Objectives:** Understand alternative methods to increase faculty submission of resident end-of-shift evaluations by incorporating this metric into the faculty incentive compensation plan.

**Background:** In the Program Requirements for Graduate Medical Education (GME) in EM, the Accreditation Council for GME states "Feedback from faculty members in the context of routine clinical care should be frequent." It is a common challenge for program leadership to obtain adequate and effective summative evaluations. Previous attempts at our institution to increase feedback have had limited effect.

**Objectives:** Department leadership hypothesized that linking completed evaluations to the faculty incentive compensation plan would increase the quantity of evaluations.

**Methods:** This is a retrospective, case-crossover interventional study conducted at an academic tertiary level 1 trauma center and primary EM residency teaching site. At the start of the 2021 fiscal year (FY21), submission of resident evaluations was added as an incentive compensation metric. We examined fiscal year 2020 (FY20) and FY21 to compare the number of evaluations per shift per attending and total FY quantity of completed evaluations. We included faculty who were employed for the duration of FY20 and FY21. We excluded fellows, faculty who do not routinely work with residents, non-resident shifts, and incomplete evaluations.

**Results:** We identified an increase of 42% in total evaluations completed after implementation of the incentive metric with an increase from 1149 evaluations in FY20 to 1629 evaluations in FY21 (Figure 1). 32 of the 38 faculty members included had an increase in evaluations per shift from pre- to post-intervention (Figure 2).

**Conclusions:** Incentivizing faculty to submit resident evaluations through the use of bonus compensation increased the number of evaluations at our institution. This information may be used by others to support similar interventions to increase written feedback. This study is limited to a single academic site as well as limited to a finite period of time. Further research will need to be conducted to determine if this trend continues over time.

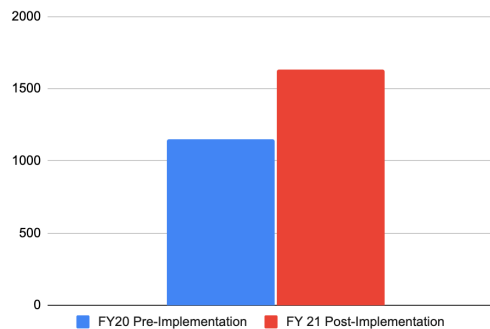


Figure 1. Total evaluations.

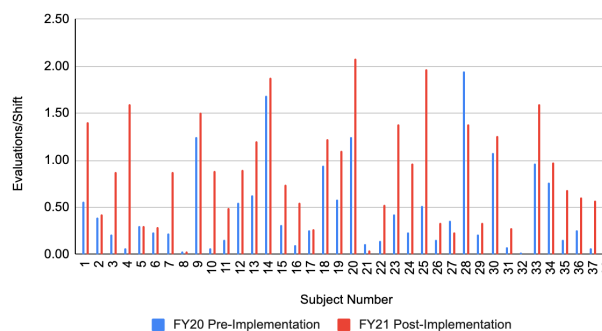


Figure 2. Evaluations per shift.

### 4 Perspectives in Post-Pandemic Employment for Emergency Medicine Trainees

*Jennifer Kaminsky, Josh Greenstein, Aron Friedlander, Brian Summer, Waqar Khalid, Dimitri Livshits, Brenda Sokup, Benjamin Fombonne, Jeremy Hardin, Abbas Husain*

**Learning Objectives:** To survey graduating EM residents on their perceptions of the EM job market and its effect on their desire to pursue fellowship training.

**Background:** The COVID-19 pandemic has resulted in changes to the emergency medicine (EM) workforce which pose challenges to residents graduating from EM training programs. New graduates face increasing uncertainty in the search for their first job. EM graduates in 2020 and 2021 saw a notable decrease in opportunities compared to years prior. ACEP's Workforce Study (April 2021) predicts a surplus of