

Faculty Development Utilizing Educational Video-Based Scenarios and Evaluative Instrument for Handoff Communication

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Background: The most recent iteration of the Accreditation Council for Graduate Medical Education (ACGME) duty hour regulations, released in July 2011, has further limited PGY-1 shift duration to 16 hours. Explicit language in these regulations also mandates handoff education for trainees and for residency training programs to assess handoff quality. However, there is a lack of validated tools for the assessment of handoff quality and to utilize for trainee education.

Methods: Faculty were recruited via email to participate in a workshop on handoff education and evaluation to both pilot test the videos and for instrument validation. Six video-based scenarios were developed which highlight varying levels of performance in the domains of communication skills, professionalism and setting. Each video permuted one domain of performance while holding the others constant. Scripts were based upon real-time clinical observations. Videos ranged in length from 3-5 minutes. Videos were shown in a random order and faculty were instructed to use the Hand-off CEX to rate the performance; debrief occurred immediately after to identify barriers and facilitators to the displayed behaviors. The Handoff CEX was developed is a paper-based instrument in which individuals are rated in six domains on a nine point scale (unsatisfactory[1] to superior[9]) with qualitative anchors defining each level of performance. Descriptive statistics and two tests of reliability, Cronbach's alpha and Kendall's coefficient of concordance, were performed. Two tests of validity were performed: a test of trend across ordered groups and a Two-Way ANOVA to examine for rater bias.

Results: 172 of a possible 189 (91%) handoff observations were captured. Reliability testing revealed a Cronbach's alpha of 0.77 (0.8=optimal) and Kendall's coefficient of concordance of 0.68 to 0.77 (>0.6=high reliability). Faculty were able to reliably distinguish the different levels of performance in professionalism and setting, but had greater difficulty distinguishing between satisfactory and superior communication. Two-way ANOVA revealed no evidence of rater bias. Faculty participants commented on face validity of video scenarios, specifically those portraying setting and communication skills. In addition, robust discussion resulted in identifying the barriers and facilitators to the behaviors demonstrated in the video.

Conclusions: Video-based scenarios, utilized to highlight differing levels of performance, with focused debrief are an effective way to observe specific domains and behaviors in handoff communication. In addition, the Hand-off CEX is a reliable and valid tool to assess varying levels of videos depicting handoff performance.

Motivations of Resident Time Spent in Clinical and Educational Activities at Home: Implications of New Duty Hours

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Background: The ACGME required implementation of resident duty hour restrictions across the U.S. in July 2011 and time spent performing patient care activities while out of the clinical setting is now being counted as part of the maximum allowed hours. While prior studies show that many residents access electronic health records (EHR) from home to complete clinical tasks, no study has yet examined what compels residents to complete clinical tasks from home after leaving the hospital. The aim of this study is to ascertain the motivation among Internal Medicine housestaff from three teaching hospitals to perform clinical work outside of the monitored duty hours.

Methods: An anonymous two-page survey was created to assess the frequency by which residents perform clinical activities from home via telephone, internet, or remote access of EHR (checking labs, reviewing records, placing orders, communicating with ward teams, or managing clinic patients). Residents were also surveyed regarding their motivation to perform clinical duties from home on a 5-point agreement Likert scale.

Paper surveys were distributed to Internal Medicine residents at mandatory housestaff meetings at three Midwestern teaching hospitals in Spring 2011. The surveys were entered into an Excel database and statistical analysis was performed by use of STATA 10.0. Chi square tests were utilized to assess differences by site or by residency training year.

Results: 156 of residents responded with an overall response rate of 77%. Site responses varied from 68% to 86% ($p=0.02$). Residents reported accessing the electronic health record from home for checking labs for inpatients (86%) and outpatients (73%), ordering labs for inpatients (71%) and outpatients (56%). Communicating via phone or text with a co-resident was common (84%), and 74% reported contacting the cross-cover team from outside the hospital. Nearly a third (29%) of residents reported coming to the hospital to complete patient care work on their designated day off. 39% came to work on their day off for educational purposes.

The most common reason residents reported working from home was to monitor a patient's progress (81%) and to complete unfinished work (65%). Most residents (88%) believe the ability and skill-set to work from home is useful for future independent practice. There were differences between PGY classes, where interns were more likely to believe their program expects them to access the EMR at home for inpatient and outpatient care (32% of interns compared to 25% of residents agreed). Almost half (45%) believe outside hospital clinical activity should also be more closely and formally monitored by the ACGME.

Significant site differences were noted regarding resident motivation and the program's expectation of residents to manage clinics from home, to complete unfinished work from home, and the desire for formal ACGME monitoring.

The majority of housestaff (40%) believed that accessing EMR from home did not interfere with their personal life versus those that did (26%).

Conclusions: In spite of residency duty hour restrictions, many residents report accessing the EHR from home to advance care, primarily to monitor a patient's progress and to complete unfinished work. As most residents believe this is a useful practice skill, it is important for residency programs to recognize this out of hospital activity and develop curricula and policies for remote use of electronic health records.

A Brief Structured Peer-to-Peer Feedback Intervention to Improve the Quality of Resident Discharge Summaries

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Background: High quality communication is required for safe hospital discharges and is accomplished primarily through the discharge summary. Clear, concise, and meaningful correspondence between providers is essential and yet, first year medical residents are generally charged with the responsibility of completing discharge summaries with little or no training. While prior studies have shown improvement in discharge summary quality after introducing a didactic curriculum with direct feedback, we are not aware of any curricula that take advantage of peer-to-peer feedback.

Methods: Based on literature review and an internal needs assessment of problems with discharge summaries, we developed an educational curriculum consisting of (1) a didactic session illustrating the quality gaps in discharge summaries at our institution, and best practices for improvement, followed by (2) a one hour session dedicated to directed peer-to-peer feedback for interns to evaluate their own summaries. A discharge summary evaluation tool, focusing on 5 elements of the discharge summary was developed to facilitate peer assessment of discharge summaries. During the peer-to-peer feedback session, interns completed a brief pre-test regarding their confidence with discharge summaries. They exchanged their own discharge summary with a partner and reviewed/evaluated them with the standardized rubric. The larger group congregated and summarized the strengths and weaknesses of their own discharge summaries and focused on areas they would work on in the future, and then completed a brief post-test to assess the experience with the peer-to-peer feedback session.

Results: 58 learners participated in this curriculum and completed the pre and post test evaluation form. 29 (50%) of the respondents were medical interns, 13 (22%) were prelim interns from other departments and, 16 (28%) were students. While 69% of respondents thought that completing a discharge summary solidifies their understanding of a patient's hospital course, only 22% were satisfied with the quality of their discharge summary. In the post test analysis, 98% of residents agreed or strongly agreed that it is useful to develop and improve skills in writing D/C summaries. 81% of residents thought the peer-to-peer feedback session was comfortable, and 85% thought that it was helpful.

Conclusions: We developed a unique educational innovation involving a peer-to-peer feedback session for PGY1 residents to assess the quality of their own discharge summaries. The peer-to-peer evaluation component was a powerful tool for allowing interns to identify their own strengths and weaknesses in their ability to write concise and accurate discharge summaries. Additionally, the group generated best practices and specific approaches to change their own practice immediately after this session. Having residents provide feedback and teaching to their peers can be a high yield mechanism for promoting learning and retention compared to traditional didactic sessions. This peer-to-peer feedback session could easily be repeated in most academic clinical settings to improve the quality of discharge summaries written by residents.

Opioid analgesic misuse in a community-based cohort of HIV-infected indigent adults

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Background: Rising rates of opioid analgesic misuse and overdose have made the practice of prescribing opioid analgesics for chronic non-cancer pain (CNCP) controversial. Individuals with CNCP and co-occurring mental illness and substance use disorders are at higher risk for misuse than those without. In a longitudinal study of a community-based cohort of HIV-infected indigent adults, we examined rates of opioid analgesic misuse, the source of misused opioid analgesics, and determined factors associated with misuse.

Methods: At a community-based field site, we interviewed participants every three months over two years about demographics, pain, treatment for pain, depression and illicit substance use (cocaine, heroin and methamphetamines). Using Audio Computer Assisted Self-Interviewing (ACASI) technology, participants self-reported opioid analgesic misuse (using opioid analgesics to get high, altering the route, selling or stealing, exchanging opioid analgesics for sex or illicit drugs, or attempting to forge a prescription). We determined lifetime (at baseline) and past 90-day rates of opioid analgesic misuse and the source of these medications. Using generalized estimating equations (GEE), we determined factors associated with opioid analgesic misuse.

Results: The mean age of the participants (N=296) was 49.4, 41.2% were African American, and 82.1% had a lifetime history of homelessness. Of the 296 participants, 48.9% reported severe pain in the past week, 27.4% reported moderate to severe depression, and 34.8% used illicit substance in the past 90 days. Almost half (47.9%) reported misuse in their lifetime; at baseline, 17.9% reported misuse in the past 90 days. A high proportion of participants reported receiving the misused opioid analgesic from a health care provider (HCP) (37.9% for getting high, 69.2% for selling opioid analgesics, 45.8% for exchanging opioid analgesics for sex or illicit drugs, and 31.3% for altering the route). In GEE models, staying in a shelter or street (Adjusted odds ratio (AOR) 1.8, 95% CI 1.1-2.8), men who have sex with men (MSM) (AOR 1.6, 95% CI 1.0-2.6), current smoking (AOR 2.1, 95% CI 1.3-3.5), illicit drug use (AOR 2.0, 95% CI 1.4-2.8), moderate to severe depression (AOR 1.5, 95% CI 1.0-2.1), and having severe pain (AOR 1.8, 95% CI 1.1-2.8) were associated with misuse.

Conclusions: In this high-risk cohort, participants reported high rates of opioid analgesic misuse. Approximately half of the time, they reported obtaining the misused analgesics from a HCP. Consistent with previous studies, we found that illicit substance use, mental illness, current smoking, and severe pain were associated with misuse. We identified novel risk factors including current homelessness and MSM. Given the high rates of misuse using a prescribed opioid analgesic, HCP need to develop strategies for close assessment of the risk/benefit profile prior to deciding to prescribe these medications. This should be accompanied with careful monitoring for efficacy and misuse behaviors if prescribed, and a willingness to discontinue opioid analgesics when goals of treatment are unmet or when problematic behaviors develop.

A Story Of Change: The Influence of Narrative on African-American Patients With Diabetes

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Background: Identifying culturally-tailored methods to improve diabetes self-care and shared decision-making (SDM) are key areas of research that can improve the health of racial/ethnic minorities. Narrative in the form of storytelling, entertainment, and role-play has shown promise as a means of facilitating behavior change, yet recent models describing its influence have not been fully explicated, and little is known about its effect in diabetes self-care or SDM.

Methods: The Diabetes Empowerment Program (DEP) is a culturally-tailored intervention to improve self-care and SDM among African-Americans; it has improved patients' self-efficacy, self-care behaviors and diabetes control. The DEP incorporates several narrative elements: personal testimonials, role-play, and a film with SDM vignettes. Our study had two aims: 1) To understand how program narrative elements may have affected diabetes-related behavior change, and 2) Whether our results would validate Larkey and Hecht's conceptual model, which describes narrative elements as mediated by transportation (i.e. engagement), identification (e.g. with characters), and social proliferation (rehearsal, discussion, support) to influence health behavior change.

We conducted four focus groups and seven in-depth interviews with former DEP patients. Using a structured topic guide, trained interviewers asked participants to describe their experience with DEP's narrative elements. Each interview/focus group was audio-taped and transcribed verbatim. Transcripts were independently coded by two researchers using an iterative process and analyzed using Atlas.ti software.

Results: 31 patients participated in the focus groups and 7 were interviewed in-depth. 76% were female, and the mean age was 58. The mean income was <\$25k, and the mean number of years with diabetes was 8.

Participants reported many narrative elements that influenced their behavior change, from which we identified three central themes. The program's narrative elements:

- 1) facilitated skills training in diabetes self-care and SDM ("when we role played...it broke down my shell. She was teaching us step-by-step");
- 2) generated relevant teachable moments, making the material more applicable and memorable ("somebody might say...'when I started doing this eating properly...my [sugars] went down'...Okay, I wonder if I did that will mine go down");
- 3) built strong social support among participants that facilitated program retention and behavioral change ("instead of me pushing away from [the education]...it's an inspiration because you hear what others go through and we get a chance to share").

These themes align closely with Larkey and Hecht's three social proliferation mediators: rehearsal/reinforcement, discussion/diffusion, and reciprocal support.

Participants also described transportation ("it had really brought me back") and identification ("I saw me there"), but these were less prominent themes.

Conclusions: Our study suggests that the use of narrative can facilitate behavior change among African-Americans with diabetes. The social mediation of narratives—the discussion and rehearsal of stories, and the support that results from sharing them—may be particularly relevant for this population, especially given their salience to existing African-American cultural traditions of shared knowledge creation, the use oral testimonials and the "helping tradition."