Title: The Art of Communication: An Interactive Conflict Resolution Session for Fourth-year Medical Students

Submission Type: Innovation Highlights in Medical Education

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Submitting Author Institution: Department of Surgery, Walter Reed National Military Medical Center

Purpose: Conflict on a team contributes to burnout among team members and impacts patient outcomes, particularly for residents (1–8). Effective interprofessional teamwork, which includes conflict resolution, is a core entrustable professional activity (EPA #9) set by AAMC (9). Communication training in conflict resolution is rare, but beneficial (10–12). We developed an interactive, communication and conflict resolution session during a transition to residency (Capstone) course.

Approach/Methods: Students enrolled in a mandatory, longitudinal transition to residency course (TTRC) have an assigned coach. One exercise they perform is participation in a conflict resolution session, piloted in 2017 and mandatory in 2018. Students are assigned online prework, participate in a simulated conflict with a standardized patient (SP) who acts as a nurse, and complete online post-work. In the pre-work, students learn about conflict resolution styles, including their own, using the validated Thomas-Kilman Instrument (TKI), then reflect upon conflict both through personal experiences and by analyzing scripted videos of medical professionals. For the practical, the student is video-taped trying to resolve a simulated conflict between a nurse who needs additional intravenous access for a patient and a resident who was told a central line was not acceptable. In the post-work, the student’s performance is subjected to critical self-evaluation and coach evaluation, both of which include entrustment. Coach evaluation includes feedback on self-assessment. The student finally fills out a course feedback form.

Results/Outcomes: Results reported are for the 2017 pilot period (n=28) and will be available for another 100 students. The two most common conflict resolution styles were compromising and accommodating. Only 53.5% (n=15) were able to predict their conflict resolution style. The most common behavior during the simulation was committing to a compromise, followed by acknowledging different priorities; the least present behavior was breaking the problem into smaller components. Faculty rated 90% of the students as entrustable based on this single encounter. In narrative comments, coaches rated 75% (n=12) of students as having accurate self-assessment, 19% (n=3) as being a bit harsh, and 6% (n=1) as missing key elements. Eighty-nine percent of students (n=25) felt this material should be offered again.

Discussion: We successfully implemented a realistic, conflict resolution communication exercise utilizing the flipped classroom, self-reflection, and a validated instrument. Students found the exercise useful; the 2018 mandatory session will help us determine if more entrustable students self-selected for the pilot. Student self-reflections on their personal conflict resolution style are not necessarily accurate, so keeping the TKI is important. In the future, we may add additional cases, since students’ narrative comments suggested that they would like practice with different types of cases and entrustment decisions are better after multiple evaluations. Our exercise can be easily implemented at other medical schools to address this important competency.
**Significance:** Having a well-developed, interactive conflict resolution session can allow rising interns to practice dealing with situations that they will inevitably encounter in the wards and set them up to establish relationships with other healthcare professionals that enhance workflow, productivity, and patient safety.
Title: Physicians as Leaders and Problem Solvers: A Medical Student Elective

Submission Type: Innovation Highlights in Medical Education

Submitting Author: Jesse Burk-Rafel, MD, MRes

Submitting Author Institution: Department of Internal Medicine

Purpose: Emerging challenges in healthcare demand physicians equipped with leadership and problem-solving skills,[1-3] yet many medical schools lack curricula that systematically develop these skills.[4,5] We report an innovative, generalizable medical student elective that offers focused, experiential opportunities for developing systematic problem solving and leadership skills.

Approach/Methods: The "Physicians as Leaders and Problem Solvers" elective is a four-week elective offered to fourth-year medical students at one institution since 2003. The elective consists of three components: First, students take a multi-day “Lean Healthcare” course where they learn a scientific problem-solving framework.[6,7] Second, students apprentice with health system executive leaders (e.g., Chief Medical Officer, Vice President for Medical Affairs), seeing local health challenges and leadership approaches. Third, students analyze a self-selected health system problem, which includes direct engagement with the workforce and providers affected by the problem. Students then create and present capstone “A3 problem-solving reports” on their topics. We evaluated this elective by rating these A3 reports using a novel rubric across nine elements: background, current situation, problem statement, goal, analysis, recommendations (two sub-elements), plan, and follow-up. Each component was scored on a 3-point scale as “inadequate,” “adequate,” or “thorough,” with descriptive anchors for each component. Additionally, project-level leadership activities and local health system changes were tabulated.

Results/Outcomes: From 2014 to 2017, students completed 40 A3 problem-solving reports focused on healthcare delivery, medical education, and biomedical research. The novel A3 scoring rubric had a Cohen’s kappa of 0.55, with 79% agreement, indicating moderately good inter-rater reliability. Most students (78%) achieved a rating of at least “adequate” across all nine assessed A3 elements. Strengths were analyzing the problem (95% “thorough”) and recommending a solution (88% “thorough”). Weaknesses included describing the problem (40% “thorough”). Notably, through this course, some students demonstrated leadership and achieved meaningful change in the local health system. One project identified problems with systematic follow-up of patients seen with osteoporotic fractures; the project analysis led to creation of a new clinic seeing 4,000 patients per year. Another project identified excessive, variable opioid prescriptions following surgery; new guidelines were implemented that prevented 10,000 excess opioid pills from entering the community.[8]

Discussion: The medical education literature offers few approaches for developing systematic problem solving and leadership skills among medical students with demonstrated outcomes.[9] This elective offers a modular, generalizable approach with evidence that most students achieve proficiency in scientific problem solving and its application to current problems in healthcare. The student products resulting from this elective were myriad, and highlight the feasibility of fostering leadership training in a
mere four-week elective when systematic problem-solving approaches are melded to student-selected local healthcare problems.

**Significance:** The Physicians as Leaders and Problem Solvers elective develops a systematic approach to leadership and problem solving that is readily generalizable to other institutions, settings, and learners. At RIME, a detailed curricular outline will be provided to interested attendees to ensure generalizability.
Title: Development of a Comprehensive Multi-Campus Advising System

Submission Type: Innovation Highlights in Medical Education

Submitting Author: Abigail Klemsz, MD, PhD

Submitting Author Institution: Indiana University School of Medicine

Purpose: Medical Students face unique challenges as they navigate their medical school curriculum. They need informed advising that will provide them with the roadmap they need to successfully graduate and reach their residency goal. Our GQ data from recent years showed a dissatisfaction with our historical advising system. Our nine campus medical school with over 1400 students posed a significant challenge in providing an effective and standardized advising system.

Approach/Methods: In 2014, twelve Lead Advisors with masters-level training and experience in academic advising were hired to accommodate all students at the nine campuses; four Lead Advisors were hired at the Indianapolis campus to accommodate the 140 students while each of the eight Regional Campuses had their own Lead Advisor. These 12 Lead Advisors were assigned to cohorts of 24-36 students in each year of training and will follow those students throughout their medical school career.

Results/Outcomes: A detailed internal survey has shown that students report increased satisfaction with their academic advising and greater awareness of who to go to for help with academic concerns. A Stoplight Report was developed for the first two years that shows which students are passing (green), passing but near the failing cut-off (yellow) and failing (red). Lead Advisors are then able to identify students who are struggling or show a decline in performance. This has resulted in increased and earlier referrals to the Learning Specialist and peer tutors. As the students have become more comfortable with their Lead Advisors, additional academic and personal issues have been uncovered, such as undiagnosed mental illness, worsening anxiety and depression, relationship issues or learning disabilities. Lead Advisors are trained to make appropriate resource referrals which has led to an increase in mental health referrals and utilization of mental health services by the students. We are also observing a decrease in the overall failure rates on clerkship and Step exams.

Discussion: Previously our students were not assigned an advisor until the start of their clinical training. Our students reported low satisfaction with that system. Adoption of a four year comprehensive advising system has resulted in better connections to our students and improved recognition of the challenges that our students encounter. Introducing Lead Advisors during orientation has led to increased acceptance of non-MD advisors and increased utilization of our learning specialist, tutoring services and mental health services. We believe that this new advising program will result in our students feeling more fulfilled by their overall medical school experience and more fully capable of achieving their academic and career goals.

Significance: Providing medical students with accessible, quality advising is necessary to ensure students feel supported and to ensure they have the tools they need to be successful. Although MDs may have the shared experience of medical school, they often do not have the time or training to adequately advise medical students. Our system which utilizes masters-level trained Lead Advisors has improved
access and quality of advising for our students as reported in our Independent Student Analysis and with
our internal advising survey.
Title: Academic Coaching for Competency Based Education: Selecting Coaches and Evaluating Outcomes

Submission Type: Sessions on Medical Education

Submitting Author: Nicole Deiorio, MD

Submitting Author Institution: Oregon Health & Science University

Topic Short Description: Academic coaching is emerging in medical education. Coaching requires a specific skill set, yet coaches can be uniquely positioned to assist learners in self-monitoring and individualized paths to competency attainment. Best practices do not exist. In this session, we will review coaching; then, with input from participants, we will aim to achieve consensus regarding skills and attributes required for successful coaching in a competency based medical education program, and define outcomes of a coaching program.

Presenters: Nicole M Deiorio, MD--presenter Maya Hammoud MD, MBA--moderator

Facilitator: William Cutrer, MD, MEdAmy Fleming, MD, MHPEAmy Miller Juve, EdD, MEdEric Skye, MDChristine Thatcher, EdD

Learning Objectives: Describe academic coaching and how it differs from mentoring and advisingDiscuss skills and attitudes required of a successful coachIdentify measures of a successful coaching program, specifically coach assessment and the coaching relationshipDescribe benefits of coaching within a competency-based program

Session Plan: Academic coaching is an emerging technique in medical education. Coaching is distinct from advising, mentoring or giving feedback (1), and requires a specific skill set for faculty, who may be inexperienced in this realm. In contrast to advising, in which the faculty is the “expert”, and mentoring, which implies an entirely supportive relationship, coaching creates a dynamic in which the faculty assists students in self-assessment and self-monitoring, and facilitates collaborative creation of an individualized plan for attaining competency in all academic areas. Coaches should push learners while avoiding the pitfalls of being overly prescriptive or supportive. At its best, coaching can increase buy-in from the learner and lead to the formation of lifelong habits. At a minimum, coaching can support competency-based education by providing a framework for learners to set goals to reach the next competency level. While many schools are introducing coaching programs, the field of coaching in medical education is nascent. Literature written for college coaching, business, nursing, or life coaching can be relevant but may neglect to take into account the unique learning environment of medical school and the needs of our students and faculty (2-4). One core problem is that consensus about essential skills and attributes to coach do not exist, nor does a unified framework for the overarching objectives and outcomes of the coaching program. While a handbook describing principles of academic coaching in medical education offers some level of operational detail (5), the community still lacks guidance on the best coach assessment strategies and tools for program evaluation. In this session, we will build a shared understanding of coaching, mentoring and advising, briefly review example coaching programs in medical education, and aim to come to consensus regarding best practices. The session faculty have each participated in implementing coaching programs and have hired, trained, and assessed coaches.
They will facilitate small group discussions in order to develop consensus in these principles. A modified Delphi approach using dot voting and large group wrap-up will be used. Attendance will be taken and demographic information collected, to ensure there has been broad representation of stakeholder groups. 10 minutes: Introductory didactic time to frame the discussion and review the concept of academic coaching. A table of coaching programs at four institutions will be shown, including selection criteria for coaches and data collected for program evaluation and outcomes. 5 minutes: Consensus-building methods will be described; discussion prompts and questions distributed. 50 minutes: Problem-solving discussion: 1) Coach selection including ideal skills and attributes 2) General scope of the coach position including responsibilities 3) Outcome measures for the coach position/coaching relationship. Dot voting will narrow the discussion and prioritize items. Additional themes that might arise will be captured. A fillable handout outlining the components of a job description and coach assessment tool will allow participants to begin creating these documents for their own programs. 10 minutes: Wrap up, summary of group findings. Ensure final reports capture group sentiment. The findings will be shared with participants and described in a manuscript for publication in a target journal such as Academic Medicine. We anticipate this session will pave the way for future work around assessment of coaches and items for coaching program evaluations. This will increase the body of work demonstrating how learners improve self-management through coaching.