Adding Meaning to the Student Experience: Student documentation after CMS Changes

Innovation Highlights
Alison Clay, MD-- Duke University School of Medicine
Nancy Knudsen, MD-- Duke University School of Medicine
Jane P. Gagliardi, MD, MHS-- Duke University School of Medicine
Michael Palko-- Duke University Health System
Catherine Kuhn, MD-- Duke University
Robert Clay Musser, MD-- Duke University School of Medicine
Felice McNair, MBA, CPC, CPMA, CEMC-- Duke University Health System
Brian Bonanno, BA, CPC-- Private Diagnostic Clinic, PLLC
Eugenia McPeek-Hinz, MD, MHS-- Duke University Health System

Purpose: Documentation is one of the 13 core entrustable professional activities defined for graduating medical students by the American Association of Medical Colleges (AAMC). Residents spend as much as 4 hours per day documenting patient care activities and often do not receive feedback on these activities. Education in documentation prior to residency has been limited by Center for Medicare and Medicaid Services (CMS) rules which previously limited student documentation for any Evaluation and Management (E/M) services to past social history and family history. These rules were changed in March 2018.

Methods: Leaders from the School of Medicine (SOM), health system, physicians group, training, and clinical informatics representatives met weekly to interpret the new CMS guidelines and discuss implementation. Clerkship directors were included to discuss common workflows in patient care areas. A training module was developed that focused on the main components of the new CMS guidelines for legal billable services as they applied to these common patient care workflows. The module demonstrated use of standardized two-column note that placed student documentation next to edits by faculty and use of new attestations for student-resident-teacher physician services. All students and residents were required to complete the module; all faculty wishing to bill for student-involved services were required to complete the module. Security for medical students within the electronic medical record (EMR) was changed to allow for documentation in the inpatient and outpatient contexts. Our EMR also required configuration of new action codes and categories for billing with student involved services. Changes to health system policy began with the new academic year for clinical clerkships.

Results: 100% of students and residents were compliant with completion of the training module within 1 week of the deadline. Feedback from the module indicated that participants viewed this change as a way to integrate students into a more meaningful clinical experience.

Student notes have increasingly been incorporated into EMR. (see Table 1). The first four months of implementation resulted in 258, 717, 780 and 770 student notes respectively. In the fourth month, 58% of notes were student-resident-faculty services. Top services utilizing notes include Hospital Medicine (on medicine and pediatrics), infections disease consults, a single primary care site, psychiatry hospitalists, and urogynecology. Although not relevant to bundled/procedure-based services, obstetrics and gynecology and surgery in and outpatient clinics have adapted use of student documentation.

By August 2019 we will be able to report additional growth in student documentation and differences in student confidence in documentation compared to students who did not have these experiences in prior years.
Discussion: An iterative quality improvement process to increase medical student documentation after the CMS changes has increased authorship of patient notes by medical students. Hurdles to adoption included differences with author attribution in the inpatient and outpatient context that impacted potential quality metrics and searchability for notes. A solution to this problem will roll-out in December 2018.

Creation of attestation phrases for student involved services did not initially include attestations for DM services, which are relevant to Medicaid services. This impacted adoption on obstetrics and pediatrics where a higher percentage of patients have Medicaid funding.

CMS guidelines, which have different rules for nurse-practitioners and physician-assistant students and providers, have created some difficulty with robust adoption across our clinical services.

A QI approach across the health system, GME/UME and within the EMR was extremely beneficial and resulted in improvements to the EMR that extended beyond student involved services.

Significance: Changes to CMS guidelines and system-wide effort to embrace these changes has resulted in increased documentation by medical students and meaningful engagement by students on their clinical teams.
SUCCEED - A Workshop to Encourage 'Bystanders' to Speak Up in Challenging Clinical Education Environments

Innovation Highlights
Kristina Kaljo, PhD-- Medical College of Wisconsin
Marty Muntz, MD-- Medical College of Wisconsin
Cassidy Berns, BS-- Medical College of Wisconsin
Michael Lund, MD-- Medical College of Wisconsin

Purpose: Issues of professionalism continue to pervade academic medicine across disciplines, clinical learning environments, departments and entire institutions (1). Due to the inherent hierarchy of academic medical centers, observed unprofessional or transgressive behavior often goes unreported, for fear of retribution and a general lack of knowledge how to appropriately intervene. Those who witness inappropriate behavior but do not act are recognized as bystanders (2,3).

Methods: The Medical College of Wisconsin (MCW) annually dedicates a full week to professionalism, reinvigorating the commitment to a collegial teaching, learning, and research environment. In October 2018, collaborators from the Kern Institute for the Transformation of Medical Education and Departments of Medicine and Obstetrics/Gynecology designed a workshop to address the bystander effect in academic medicine. The 60-minute session centered on principles of active learning and introduced novel strategies to interrupt witnessed unprofessional behavior. Initially, participants were asked to recall when they acted as bystander and could have intervened, but did not. These memories served as a backdrop to address how failing to intervene is detrimental to the learner, team, and worst of all the patient and their care. Because bystanders may encounter various power differentials, the facilitators developed a pocket card with a compilation of ABC, DDD strategies (2,3) that encourage assertive to subtle responses. A video clip from the television show Chicago Med was used to lead discussions how one might employ character and caring through the various "ABC, DDD" strategies to interrupt harmful behavior. Finally, the audience was divided into small groups to practice these newly learned intervention strategies in several hypothetical scenarios that centered on experiences of a medical student, resident, and administrative staff. The whole group debriefed and concluded with questions and answers and evaluation of the session.

Results: The participants who completed a workshop evaluation were 38 residents, 20 medical students, 15 staff, 5 faculty, 2 fellows, and 3 individuals who selected other. Overall efficacy was rated 4.07/5.0 (5=high) and speaker efficacy 4.42/5.0. Participants identified discussion of specific strategies (ABC, DDDs), practice with hypothetical scenarios, and the importance of speaking up as the most relevant aspects of the workshop. Many left the session with the plan to utilize these newly learned strategies in their personal and professional life, and reported a sense of empowerment (confidence/courage) to speak up despite existing barriers and a recognized power hierarchy. Some participants who recognized they were not willing to overtly act identified a greater awareness of more covert strategies to utilize. Only one participant suggested that we be more realistic about the culture. Participants also requested that we repeat this workshop across the institution to various audiences for a wider reach and intentional cultural change.

Discussion: Our participants, regardless of positioning in the academic medicine hierarchy, clearly agreed that challenging events involving subtle or overt behavior are common in various learning environments. A desire to develop competence in applying strategies to intervene exists, as does a desire for a safe learning environment in which to execute these interventions. At the request of participants, the facilitators intend to expand with future workshops to change the culture of existing hierarchies throughout medical education. Creating an environment of open discussion to debrief and challenge unprofessional behavior has the potential to improve overall well-being of all parties.
**Significance:** Fostering awareness of transgressive behavior and the bystander phenomenon encourage the use of concrete and tangible strategies. Using these strategies in overt and covert ways may have the capacity to improve and sustain a more collegial and psychologically safe environment. Appropriate interventions may catalyze character, caring, and well-being for individuals and culture change in academic environments.
**Personal Values for Medical Students: What Matters to You Now?**

**Innovation Highlights**
Lisa R. Shah-Patel, MD-- University of Arizona College of Medicine - Phoenix  
Zachary Baker, MEd-- University of Arizona College of Medicine - Phoenix  
Eric vanSonnenberg, MD-- University of Arizona College of Medicine – Phoenix

**Purpose:** Many physicians choose medicine as a career because of its social value and the opportunity to help others. Factors such as earnings and status are not reported to be major considerations early on in medical school, and have a generally minor influence on subsequent career decisions. However, these values change over time due to the students experiences and exposures in medical school. Choosing the right medical specialty for students begins with an understanding of personal and professional desires, other commitments, and goals.

In this project, we had first year medical students (MS1) determine their values (such as work-life balance, primary versus specialist medical professions, financial goals, rural versus urban setting, etc.). This is the first step in our pilot study that will longitudinally track changes in values over the four years of medical school. As medical students are well known to change their minds about specialty choice numerous times, we eventually want to correlate whether changes in their values are related to changes in their choice of career specialty.

**Methods:** Near the midpoint of students first year at our institution, we host a Values Auction. Students bid on values they deem important to them (these values are part of the AAMC Careers in Medicine curriculum). At the conclusion of the event, students were surveyed in an effort to understand the values that most represented the values that would influence their choice of specialty. They were instructed to select the three most important values as they looked into their respective futures. A total of 78 students were included in the study.

**Results:** Survey results indicated that the most commonly chosen value for MS1s is Enjoy life outside of work. That value was chosen by 43 students, or 55.13% of respondents. Rounding out the top five values were: Maintain good physical & mental health (31 students, or 39.74%), Teach medical students or other healthcare professionals (20 students, or 25.64%), Obtain financial security (19 students, or 24.36%), and Serve the local community (12 students, or 15.38%).

Achieve high social status and Become a household name were never chosen. Provide indigent care, Oversee a large staff, Work independently, Become a hospital administrator, and Supervise other physicians were only chosen once each.

**Discussion:** Perhaps reflecting the stress that medical students feel and perceive with their chosen profession of medicine, their two top value choices reflect so-called wellness values, i.e. enjoy life outside of work and maintain good physical and mental health. As burnout is such a commonly discussed and experienced issue currently, perhaps these values are what students perceive to be the antidotes to burnout.

Rarely or never chosen values included achieving high status, making a lot of money, providing indigent care, and assuming administration and supervisory roles.

**Significance:** These baseline values by MS1s are interesting in themselves, and assuredly represent a reaction to current times and perceived societal stresses on themselves and as physicians. It will be interesting to follow the students longitudinally to see how values change and the correlation to specialty choice.

Another interesting comparison will be to compare these values to those of prior generations.
Clinical Setting Differences in Third-Year Medical Student Perceptions of Patient Ownership

Innovation Highlights

Elena Wood, MD, PhD-- Medical College of Georgia at Augusta University
Tasha Wyatt, PhD-- Medical College of Georgia at Augusta University
Sarah Egan, MS-- Medical College of Georgia at Augusta University

Purpose: Patient ownership in clinical settings is a construct that may be described as feelings of responsibility and accountability towards a patient, which has potential implications for patient safety and clinical care. Researchers were interested in examining differences in student perceptions of patient ownership across main and regional campuses. The purpose of this study is to assess third-year student perceptions of "patient ownership" during their clerkship rotations in different clinical settings.

Methods: Items from a validated instrument on psychological ownership were adopted to suit a clinical environment. Scores on each of the sub-scales of: a) Territoriality, b) Accountability, c) Self-efficacy, d) Belongingness, and e) Self-identification were calculated. The survey was administered to third-year medical students multiple times throughout the academic year. Responses from regional campus and community practice settings were compared to responses associated with the main campus setting. A Mann-Whitney U test was performed on each sub-scales along with individual questions/items on students' psychological ownership scores.

Results: Surveys were distributed at the end of each of seven clerkships resulting in 265 total responses, and response rate of 41%. There were no statistically significant differences between campuses for Territoriality scores when examining this sub-scale. On Self-Efficacy, Accountability, Self- Identification and Belongingness scales, community practice and regional campuses group had significantly higher scores on 1-5 Likert scale (1-strongly disagree, 5- strongly agree) than main campus (p<0.05). An analysis performed for all scales by individual questions/items resulted in statistically significant differences in 2 out of 4 items/questions for Territoriality, 2 out of 5 on Accountability, 2 out of 6 on Self-Efficacy, 5 out of 5 on Belongingness, and 7 out of 7 for Self-Identification.

Discussion: The results of this study indicate students education in the RMC/CP model benefits their professional development in that it provides a clinical environment where students can begin to experience and develop an ability to own" patient care. The medical students in this study rated Accountability, Self-Efficacy, Belongingness, and Self-Identification sub-scales higher after participating in a clerkship in a RMC/CP setting compared to students completing their rotation on the main campus that utilizes an academic medical center as the clinical setting. RMC/CP settings provide more one-one time with a preceptor, direct interactions with patients, and higher autonomy in making clinical decisions, which could contribute to these significant results. Additionally, we were interested in exploring the impact of clinical setting among the different individual items of the modified Psychological Ownership instrument. A sense of belongingness on the team seems to be one of the biggest differences between clinical settings, evidenced by the fact that all five items were significant.

Significance: Patient ownership is considered an important aspect of patient care, patient safety and professional identity formation, yet researchers have not examined how clinical settings impact students' perceptions of patient ownership during their clerkship years. Our study is the first to operationalize and conceptualize patient ownership and its differences in various clinical settings.