Journal of Medical Humanities
https://doi.org/10.1007/s10912-018-9541-1

The Reflective Scribe: Encouraging Critical Self-Reflection and Professional Development in Pre-Health Education

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Published online: 03 September 2018

Abstract
Much has been said about the formative process that occurs via the "hidden curriculum" of medical education during which many students experience a disconnect between the professional values espoused within the formal curriculum and the implicit values communicated through interactions with peers and mentors. Less attention, however, has been paid to the formation of the future medical self that takes place during students' *premedical* years, a time in which many undergraduate students seek out immersive clinical experiences —such as medical scribing— before applying to medical school. Despite the fact that medical scribes undoubtedly are affected by their clinical experiences, scribes are rarely offered opportunities to reflect on them. The authors contend that the developmental processes of medical scribes, especially those who intend on pursuing a career in the health professions, ought to be supported. This can be achieved, at least in part, through engaging in well-designed reflective sessions with other scribes. Encouraging students to reflect on their experiences can help them make sense of troubling events and give voice to the inconsistencies and value conflicts within medical practice that are so often ignored. The authors describe the development of their new Reflective Scribe program and offer suggestions for future directions.

Keywords Medical scribe · Mentoring · Pre-health education · Professional identity formation · Reflective writing

The shifty devil

Hojat and colleagues (Hojat et al. 2009) have reported on the "erosion of empathy" amongst medical students. Followed longitudinally, medical students showed no marked difference in

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empathy scores on the Jefferson Scale of Physician Empathy over the first two years of medical school; by the third year, however, the scores declined (see also, Neuman et al., 2011; Stansfield et al. 2016). In conventional medical school curricula, the first two years are course-based, and the third year sees the students engaging in intensive and immersive patient-care experiences — a time during which empathy is especially clinically important. This phenomenon has been referred to as "the devil in the third year." Although some have suggested that testaments to the decline in empathy during students' clinical years may be exaggerated (Colliver et al. 2010), it is difficult to ignore the very real (and often negative) socialization, acculturation, and personal transformation processes that occur during the clinical years — formative experiences that shape the kinds of doctors medical students are becoming (Hafferty 2008). Much of the learning that influences students on this personal level, however, is tacit and relegated to the informal or "hidden" curriculum where students' perspectives and identities are passively crystallized. So, while many espouse the ideal of instilling students with empathy, compassion, and other virtues, the educational process provides only fleeting moments or brief asides for students to reflect on their experiences or to seriously consider who they are becoming (Wear et al. 2015). It is within this educational climate that medical humanists and other educators have expressed the need for longitudinal education in ethics and empathy and for not waiting to begin students' exposure to the medical humanities as a preventive strategy to protect the students — and their patients—from harm.

Would that it were so simple. As it happens, at least three sets of changes have dramatically altered the population and ecosystem of prospective medical students over the past decade. First, there have been systemic changes in medical school admissions; chief among these is a new emphasis on competencies rather than a checklist of courses (HHMI/AAMC), and these competencies include professionalism, ethics, and communication skills (especially as assessed via the MMI – multiple mini interview – format for applicants pioneered at McMaster University in 2002). Second, in order to hone these skills as well as to demonstrate their familiarity with clinical contexts, premedical students increasingly are clamoring for meaningful clinical experiences before applying to medical school; beyond merely shadowing clinicians, premedical and pre-health students now seek some proficiency in actual patient care. Third, changes in the practice of medicine — especially with the onset of electronic health records and the lead up to and consequences of the Affordable Care Act — have created a space, perhaps even a demand, for premedical students to be employed as "medical scribes." Medical scribes are primarily junior and senior undergraduate students who record and manage patient information in real-time, functioning as physicians' partners in the clinical encounter, usually in the Emergency Department. While there are those employed as medical scribes who do not intend to pursue a career as a healthcare practitioner, the vast majority of scribes are pre-health students (premed, pre-nursing, pre-physician assistant) (Berger 2015). And the number of scribes employed in emergency departments and outpatient clinics is growing: in 2014, according to the American College of Medical Scribe Specialists, there were 15,000 medical scribes working in the United States, and they estimate that this will increase to 100,000 scribes by 2020, a market worth $1 billion (Berger 2015). Although some argue that certified professionals, such as Medical Assistants (MAs), should be trained as scribes — since they are familiar with medical language and the healthcare environment — most scribes have neither previous training nor experience in healthcare (Schiff and Zucker 2016). While those hired undergo orientation and training (ranging from a single week to approximately two months), these new scribes become embedded in the clinical experience almost immediately — taking notes during patient interviews, recording the history of present illness, review of systems, physical exams, differential diagnoses, and progress notes in the electronic medical record

(EMR), as well as calling consults and gathering medical records from other hospitals and clinics (AAMC 2015).

If there is indeed a causal, and not merely correlational, connection between intensive clinical experiences and the erosion of empathy (as research about the clinical years of medical school suggests) and if the protective effects of the medical humanities are not integrated into the *pre-health* curriculum — since so many undergraduate students are immersed in clinical contexts — then the rise of the medical scribe may be seen to foster a new niche in which our devil, eroded empathy, might flourish. The devil is still in the third year, but perhaps it is in the third year of *undergraduate* education.

Premedical humanities

Given the changed ecology of pre-health training and medical/professional school admissions processes, integrating medical humanities only in medical school may be too late. Indeed, many would agree that the formative process of becoming a clinician starts long before matriculation in medical school. As Jeffrey Gross and his coauthors contend, "Students must realize that the undergraduate premedical experience is not just a means to enter medical school; it is also an experience that is shaping their character" (2008, 519). With so much emphasis on grade point average, test scores, accumulating service and shadowing hours, and engaging in research in order to become the most attractive applicant to medical or other health professions schools, students are implicitly (and sometimes explicitly) discouraged from taking time to consider critically why they want to become clinicians specifically or reflect on the healthcare system and the practice of medicine more generally. Premedical education, for example, can be intensely rigorous and fiercely competitive with little focus on collaboration and collegiality. As Harvard medical student Nathaniel Morris bleakly points out in a recent *Scientific American* blogpost, "We want doctors who can work in teams and who put patients' interests first. Yet our current pre-med system bears little relationship to the practice of medicine and encourages students to focus on their own success above all else" (2016). What is more, many students avoid classes or experiences that challenge their assumptions or orient them toward new ways of thinking when such courses are perceived to be extraneous to a premedical degree or threatening to their grade point average (Gunderman and Kanter 2008).

Hence the need for *premedical or pre-health humanities*. Premedical humanities may (and should) take many forms and be informed by many disciplines, including ethics, philosophy, history of medicine, art, theater, and forms of narrative practice (literature and composition). Since narrative practices have been built into physician education in medical school, graduate medical education, and continuing medical education in order to enhance physician empathy, professionalism, communication, and other "non-cognitive" skills, we are confident that a focus on forms of narrative practice — in particular, intentional self-reflection — will enhance these skills in premedical students as well. And so we propose "The Reflective Scribe."

The reflective scribe

Like medical students, premedical students who work as medical scribes witness and participate in clinical experiences that are fraught with human suffering, power dynamics, and social inequities. However, unlike medical students, scribes usually are not considered part of the

medical team (who, therefore, might voice concerns over troubling experiences), nor are they afforded opportunities to reflect intentionally upon clinical encounters and consider the ways they are being shaped by their entree into the medical world. And yet, scribes also are unlike the many undergraduate students who shadow in hospitals and clinics: they are not simply passive watchers. Rather, medical scribes occupy a liminal space where they quietly observe without engaging patients while simultaneously *participating in care*— albeit indirectly in the form of assisting the physician with her note-taking and charting. So, while scribes cannot enter physician orders into the EMR (though, some commentators have expressed their fear of "unintentional functional creep" where doctors will eventually ask scribes to enter verbal orders into the EMR, especially given the pressure of physician productivity and the lack of oversight in scribing work), scribes are nevertheless responsible for documenting what "goes on" in the clinical space, such as specific physical exams or time spent counseling patients (Berger 2015). While, on its face, documenting such things seems rather benign, it is important to remember that these are the things for which hospitals and physicians are reimbursed. In a 2014 blog post, "The disturbing confessions of a medical scribe," published on the widely read site KevinMD, an anonymous premedical student writes about "the small temptations and conveniences" that physicians are confronted with when all it takes is "a few buttons to increase your billing" (Anonymous 2014). These temptations put scribes — the people responsible for clicking those buttons — in an awkward, and ethically complicated, position. The author of the blog, for instance, talks of the deep tension he or she feels in such situations: "I've been told by physicians, 'If the patient is an active smoker, just click that button about the counseling.' Most of the time, the patient is counseled. Sometimes though, they aren't. But if that button isn't pressed, eventually, it comes back onto me. … As a 'good' scribe, I don't say anything and I click the button."

Despite the fact that scribes undoubtedly are affected by their clinical experiences—whether it is witnessing intense human suffering and death or feeling pressure to engage in potentially unethical behavior — little to no attention has been paid to scribes' personal and professional development. Thus, in our view, the developmental processes of medical scribes — especially those who intend on pursuing a career in the health professions — ought to be supported, specifically through engaging in well-designed, but informally facilitated, reflective sessions with other scribes. Encouraging students to reflect on their experiences can help them make sense of troubling events and give voice to the inconsistencies and value conflicts within medical practice that are so often ignored. As Richard Cruess et al. point out, when time is taken to reflect on their experiences during training, students can become "active participants" in their development (2015, 721). The incorporation of reflective writing into medical education is lauded for its capacity to interrupt the automaticity of taken-for-granted thoughts and assumptions, slowing students down so that they might begin to process the vast experiences with the human condition that are made uniquely available to them as participants in the medical field (Wear et al. 2015). Offering such opportunities to medical scribes during their first exposures to medical practice therefore seems essential to their professional identity formation.

Cultivating the reflective scribe

We are in the early stages of developing The Reflective Scribe program at our institution, Arizona State University (ASU). ASU is amongst the largest public universities in the nation with 74,139 students enrolled in the fall of 2015 (ASU Facts 2016). Of these students, 4,195

were enrolled in the College of Health Solutions and 1,429 in the College of Nursing and Health Innovation. Additionally, the School of Life Sciences—the home of the majority of our biology majors—estimates that somewhere between 3,000-4,000 of their students currently consider themselves premed/pre-health majors. Needless to say, at an institution with so many undergraduates interested in future healthcare careers, a program such as ours has the potential to make a meaningful contribution to both our university and healthcare communities.

With the guidance of a trained facilitator, fifteen premedical students participated in our first two pilot sessions — which we intend to develop into a longitudinal suite of sessions — focused on honest, extemporaneous, reflective writing. For both sessions (held approximately seven months apart), Jack Truten, Consultant-Director of the Narrative Professionalism Program for residents and fellows at the University of Pennsylvania School of Medicine where he facilitates *Narrative Professionalism* seminars for medical residents and fellows, visited ASU specifically to lead our Reflective Scribe sessions. Students engaged in ten minutes of reflective writing in response to a prompt related to the tension between their professional duties and the sometimes overwhelming nature of their lives as pre-health students. Students then (voluntarily) shared these reflections aloud, and others in the room offered responses, asked questions, and shared similar (and sometimes different) feelings and experiences.

Both producing and reading reflective writing requires a different kind of thinking and writing than is typically required of the medical scribe — and of the pre-medical/pre-health student more generally. The "truth" of the stories students tell is uncovered, revealed, and co-created rather than readily discerned as an objective, observable fact. The movement or freedom within this thinking allows for ambiguity, contradiction, and a multiplicity of interpretations. Thus, students, in the act of narrating and reflecting on their experiences, might change or re-frame the stories they tell, gain access to other cultural scripts outside of contemporary medicine, or come to know themselves differently (Smith and Watson, 2010). According to Johanna Shapiro and colleagues:

> Reflective writing requires learners to break free from familiar orienting points, typically relied upon to interpret and make sense of medical events, and approach these same events in new, sometimes foreign ways. Through writing, learners think about other people's situations, including patients', and contemplate their own reactions in relation to those situations from a subjective, personal, and indefinite vantage point. (2006, 234)

It is the "breaking free" provided by reflective writing that is particularly important for medical scribes whose job it is to listen, memorize, and transcribe in precise medical language. Reflecting on how experiences in the clinical space cause them to react or feel allows students to think outside of the prescriptive and limiting language of medicine that all too often renders profound experiences inconsequential and can help them identify with the affective experience of medical care. Personal accounts told in the "reflective mode"—as opposed to the "mimetic mode" of the larger medical culture — offer an alternative and affective rendition of events that might "protest against dehumanizing aspects of ward culture" (Good and DelVecchio Good 2000, 65). In contrast to the mimetic mode, this reflective mode both requires and cultivates a different kind of thinking that can bring depth and intensity to the traditional and narrow medical accounts found within patient charts.

In order to help students engage in the reflective mode, trained facilitators familiar with pre-medical and medical education and the medical humanities might solicit narratives that capture an actual experience or event. Narrated events or occasions — with their characters, motives,

themes, stylistics, plots, and so forth — lend themselves to further reflection and analysis when read aloud to the group. Students can be asked to share on a variety of topics, via guided but still open-ended prompts such as:

- Write about the moment when you decided to become a scribe and what motivated this decision. Then recall an experience that either affirmed or defied your expectations of what being a scribe would be like.
- Give an account of your first shift as a scribe—what is one word that might best describe how you felt that day? What is the most memorable thing that happened?
- Describe a patient interaction that, for better or worse, you will never forget.
- Recall an interaction with (or observation of) a member of the healthcare team that made you reconsider your assumptions about that person's role in patient care.
- Has there been a time when you've experienced something in the clinical setting that has made you feel uncomfortable? How did you react to this experience?

In responding to such prompts and sharing responses with peers, medical scribes might clarify for themselves how they feel about working with patients and other healthcare professionals, determine whether and why they want to pursue a career in healthcare, and identify the doctors, nurses, therapists, technicians, etc. they want (or do not want) to become. What is more, in sharing written responses, some scribes might be relieved to hear that their peers experience similar frustrations, fears, and joys, thereby creating a sense of solidarity and community within a group of healthcare workers who are so often overlooked when it comes to personal and professional development.

Looking back and planning forward

We intend to make our Reflective Scribe program more robust and institutionally sustainable. One challenge we've encountered is identifying which undergraduates are employed as scribes; this is because medical scribes most often are employed by private companies who hire, train, and manage them. For our first two sessions, we advertised the opportunity through Listservs associated with health- and medicine-related student interest groups on campus, and engaged in a kind of snowball sampling where we asked students who work as scribes to invite their peers who also work as scribes to attend a reflective session that we organized on campus. As we proceed, it will be important to involve premedical or pre-health advising in this endeavor, as it is often the case that academic advisors encourage students to pursue work as medical scribes. As such, these advisors might help us identify pre-health students who work as scribes, as well as encourage their students to participate in our reflective sessions. Along with this, it may be worthwhile to collaborate with medical scribing companies, either offering to facilitate reflective sessions with their employees (students and non-students alike) or assisting them in the initiation of their own reflective sessions that foster personal and professional development among those whom they employ.

Reflective Scribe sessions might take on many forms, and it is important to examine what kinds of sessions and session formats are most engaging and meaningful to students. Such formats — single session, multiple session; online, in-person; sessions with experienced scribes, new scribes, pre-scribes; with mandatory/optional/no verbal exchange of narratives; etc. — should be compared and assessed for their impact, outcomes, and feasibility.

In our experience, we too often see premedical students employed as scribes who are left feeling overwhelmed, burnt out, and dispirited after their scribing experience, feelings that may well be linked to eventual declines in empathy. It is time that we pay attention to this group of nascent professionals and help foster and protect the personal and professional identities they are developing — especially if these students are going to become our future caregivers.

Acknowledgments The authors wish to thank the medical scribes who volunteered to participate in our reflective sessions, as well as the personal narrative instructors who contributed to our overall conviviality.

Funding/Support This project was undertaken with the support of the Lincoln Center for Applied Ethics at Arizona State University.

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