

Technology and the Future of Palliative Care Education

David E. Weissman, MD, FAAHPM, Founding Editor

I RECENTLY ATTENDED A COMMUNITY FORUM in Boston featuring an impressive list of national thinkers discussing the role of technology in society. The highlight of the forum was when Yo Yo Ma, the celebrated cellist, made a passionate defense of human to human connectedness against the seeming relentless move to ever increasing technology in our daily lives. In medicine we have all watched the relentless push to make health care a commodity in which the patient is increasingly distanced from providers. From electronic medical records which impel clinicians to face a keyboard rather than the patient, to clinicians who order radiographic tests without first talking to let alone examining a patient, to the ever increasing health system forces that reward and punish clinicians based on service volume over patient quality.

As it applies to palliative care education, I frequently get asked about the role of technology to improve clinician education—everything from e-learning to mobile device apps to simulation avatars in communication skill training. How should we respond to this technological imperative within our field? Here are a few principles that guide my thinking:

1. Adoption of new technology is very much a generational issue; those of a younger generation view technology very differently from those of us with a predominance of gray hair. Both sides need to be up front about this and not reject either learned experience nor openness to new ideas about how technology can improve training.
2. Education-related technology is only a tool, not an endpoint in itself. I see far too many clinician educators start a discussion with, *I want to use a new technowhizbang to improve education outcomes*—rather than saying, *I want to accomplish a specific education outcome. What technological tools can be used to facilitate that outcome?* In other words, there is too much training designed around a methodology, rather than designed around a set of specific learning objectives.
3. The classic principles of instructional design are still relevant in this era of technology. Planners should complete a needs assessment followed by learning objectives followed by a match of objectives to optimal training format/method, followed by construction of a lesson plan.
4. Recognize the limitations of technology. Technology is especially good at providing knowledge. Technology can facilitate some skills development, but is probably least effective in helping learners identify and change personal attitudes. In palliative care, especially in the critical domain of communication skills, it is attitudes which are the key barriers to long-term transformation of new knowledge and skills into practice change.
5. Recognize where human to human contact is essential. Most of the barriers to the provision of high-quality palliative care relate not to knowledge deficits, but rather dysfunctional attitudes. *I will get sued if I ...; The patient will lose hope if I discuss prognosis; I don't want to make the patient an addict*, etc. These attitudes arise from one's personal background, culture, training, and practice experiences. They are deeply held and thus resist easy efforts at change. The key features of training that can be used to help change attitudes have distinct parallels with psychotherapy, including self assessment, naming, reframing, and coaching. I have yet to see a technology-based approach that can substitute for two humans sitting down and having the type of conversation necessary to help clinicians confront and then move past attitude barriers.
6. Appreciate the limitations of any educational intervention to change practice behavior. Increasingly it is recognized that the key to behavior change is education combined with systems change—establishing a framework that supports clinicians to perform the correct clinical skills at the right time. Routine pain assessment as the fifth vital sign is a classic example of a systems change intervention.

I love technology but I remain committed to human to human teaching as the cornerstone of palliative care education. However, there are downsides that must be acknowledged. First, despite the rapid growth in our field, there is still a paucity of clinicians who can effectively teach palliative care principles using methods best designed to change practice behavior; as a field, we have not put nearly enough emphasis on nurturing the next cohort of palliative care educators. Second, it is extraordinarily hard to take what is essentially small group learning and make it scalable to large numbers of clinicians. Third, although training costs are miniscule compared to costs associated with overmedicalization of the dying, finding funders to support education is a constant struggle. The key stakeholders for improving care within American medicine are at the hospital and health system level, yet helping administrators make the link from a better educated clinician workforce to improved outcomes is not an easy sell during this period of rapid shifts in health care financing. Health care payors, the other major stakeholders, are increasingly interested in palliative care education, and this audience may well be the major funding source in the coming years.

Although everyone clamors for health professional schools to do a better job in palliative care education, as the old saying goes, trying to change a medical school (or nursing or social work) curriculum is like trying to turn a battleship. Health professional schools are increasingly turning the technology to augment teaching—but how this will play out in palliative medicine is far from clear. It is certainly a positive step that more and more schools are incorporating simulation training as a means to foster improved skills across a range of topics, including communication skills. However, the enthusiasm I had 20 years ago about the role of health professional schools to improve palliative care knowledge and skills has waned over time, as I've watched newer, shinier topics take center stage, edging out what is still commonly referred to in medical education as “end-of-life care.” The unfortunate linkage of palliative care with end-of-life care is a major deterrent to widespread adoption of core palliative care educational domains. Furthermore, there is an unbelievable amount of energy required to maintain a high-quality palliative care curriculum year in and year out, a curriculum that is highly vulnerable to the loss of a palliative care champion. When the director of a medical school course in microbiology leaves the institution the course will remain intact. However, the loss of the key driver for palliative care education is more likely than not to result in a significant if not total loss of the curriculum.

I wish there were an easy answer, a clear path to follow to improve clinician education and resultant practice behavior. For the past 15 years we have relied on large-scale, high-quality education products, EPEC, ELNEC, *Fast Facts*, and the various products from our professional organizations as the backbone of palliative care education. These products have taken us forward in very positive ways—but I am not sure they are the right products that can take us to the next level of learning and practice change for the new and future generation of learners. It is time to rethink and redesign education products that best incorporate those features we know are effective in combination with new technology in ways that, as least to me, are currently unimaginable. We need to reach out to colleagues in instructional design, education psychology, and computer technology to design and test new ideas to foster the type of educational products that promote the patient-centered care we all strive to achieve.

Address correspondence to:
David E. Weissman, MD, FAAHPM
Froedert Hospital
8700 W. Wisconsin Avenue
Milwaukee, WI 53226

E-mail: dweissman38@gmail.com