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# Teaching Physicists Effective Patient Communication Through eLearning

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Innovations in Health Science Education Journal

## Teaching Physicists Effective Patient Communication Through eLearning

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Poster presented at the 2022 Spotlight on Scholarship at the University of Nebraska Medical Center, Omaha, Nebraska.

### Audience Choice Award Winner

#### Abstract

Physicists are plagued by a stereotype that suggests we are socially awkward nerds, terrible at communicating. However, recent studies show that physicists working in medicine can be trained in patient communication, and that this communication can be immensely beneficial to cancer patients undergoing radiation therapy. While medical physicists, like physicians, undergo residency training prior to working in patient care, they are rarely trained in patient communication. Given the current lack of training, we created an eLearning module that serves as a primer for physicists to learn why physicist-patient communication is important and how to communicate effectively using a "four E's" model: engage, enlist, educate, and empathize. The module incorporates interactive video components that allow the learner to view and assess communication strategies, culminating with a branched-scenario simulation where the learner chooses their own responses to a patient's questions and views the consequences in real-time. To determine whether this module is effective at conveying the importance of physicist-patient communication and increasing learner confidence in each of the four E's, we designed pre-module and post-module surveys that assess attitudes and confidence around patient communication. We then completed a pilot case study with a medical physicist resident at UNMC. In this pilot, learner confidence increased across 3 of the 4 E's, and the learner indicated stronger belief in the importance of physicist-patient consultation. The promising pilot results were used to refine our survey design so the module can be deployed to a large cohort of students, residents, and practicing physicists across the country. We expect the results of this larger study to reveal whether the module achieves the learning objectives for each of these groups. We will also collect data on how learners engage with the module (e.g., responses in the simulation, assessment scores) to guide the development of future eLearning tools.

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