A Curriculum to Provide Clinical Skills Training to Medical Students on the Interface of Pain and Addiction

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Purpose

Pain and addiction issues are common challenges for physicians. Comorbid substance abuse affects 20 - 40% of patients on opioid therapy for chronic pain. Non-medical use of opiates is common and an indicator of their abuse potential: an estimated 6.2 million people over age 12 have used opiate pain medication in the past month, according to the 2008 National Survey on Drug Use and Health. Health professionals may be unaware that addiction is often uncommon among patients being treated for pain; and even when present, there are effective treatment options available.

At the completion of their training, medical students lack clinical skills in assessing pain and addiction potential which can lead to under treatment of pain, overuse of opioids in at-risk patients, diversion, exposure to addictive substances without proper monitoring, and worsening of prior addictive disease. Medical schools currently lack a comprehensive and efficient solution to meet their students' need.

Using funding from the National Institute on Drug Abuse, we developed an online curriculum for undergraduate medical students on the use of opioids to treat pain when substance abuse is a concern. The curriculum is designed to appeal to medical school course and clerkship directors and to instructors who teach topics related to pain control and assessment, and includes interactive online materials and 7 Standardized Patient cases.

Method

The authors conducted a needs analysis with medical school faculty members (n=24), resident physicians (n=9), and current medical students (n=20) regarding the need for more instruction on assessment of pain and addiction, and to evaluate proposed topics. A mixed methods technique used online surveys with closed and open ended questions, and semi-structured interviews, yielding both qualitative and quantitative results. Results were used to assess need, measure interest, and determine the most relevant aspects of the curriculum plan for medical students.

A full curriculum was developed based on evidence-based guidelines for opiate prescribing published in February of 2009 by the American Pain Society (APS), the American Academy of Pain Medicine (AAPM), and the Oregon Evidence-based Practice Center at Oregon Health, and published literature found using PubMed searches. Content was aligned with AAMC and ACGME competencies. Seven instructional “Remote Live Standardized Patient (RLSP)” cases were created using an iterative expert review process. The SPs are “interviewed” by the medical students using internet based “chat” (e.g. Google chat/similar).

Results

Faculty (n=15) all strongly agreed/agreed that there was a need (score 4.40 +/- 0.51 on a 5 point Likert scale). Additionally, resident physicians reported feeling insufficiently prepared by their medical school training to deal with issues of overlapping pain and substance abuse. A second, iterative round of need analysis with different medical school faculty (n=9) and current medical students (n=20) was used to assess the draft curriculum plan and RLSP cases. In particular, medical students had a positive response to the concept and were generally receptive to the use of chat-based Standardized Patients.
A curriculum outline including 9 one hour online modules and 7 SP cases has been developed. To allow medical school faculty to integrate either the entire program or the most relevant portions into their current programs, the curriculum is cross-referenced with the APS and AAPM guidelines, and AAMC competencies. The program includes evaluative components for both quantitative and qualitative feedback from students and supervising faculty.

A summative evaluation with medical students will begin in 2010-2011.

Conclusions

An evidence based curriculum has been created that includes necessary clinical skills competencies, medical knowledge, and the most up to date practice guidelines. The curriculum matches needs identified by faculty. Future research will asses if the curriculum improves the training and self-efficacy of medical students/future physicians. Although difficult to measure, it is hoped that better trained medical students will deal more effectively with the complicated issues that arise in treating pain, especially in terms of demonstrating appropriate awareness of the risks to the patient in terms of existing or potential substance use problems.