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Jon Veloski

Jefferson Medical College, J.Veloski@jefferson.edu

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Developing a Tool to Assess Students' Attitudes toward Chronic Illness

Jon Veloski
Jefferson Medical College

The goals of many interprofessional programs involve changing students' attitudes. Jefferson Attitudes toward Chronic Illness Survey (Jefferson CIS), which has been used to assess the attitudes of perceptions toward chronic illness care of nearly 2,000 Jefferson students since 2007, provides a case study of some of the best practices used to develop a credible tool to evaluate attitudinal change following curricula designed to improve chronic illness care skills. Previous work demonstrates that health professionals and students often report negative biases towards care of those with chronic illness or disability.^{1,2,3} Although the details are available elsewhere,⁴ the following highlights key methods and representative findings from the initial validation study for the Survey.

Content validation and pre-testing provided a firm foundation for the Jefferson CIS. After our review of the literature confirmed that no suitable instrument was already available, one of our co-investigators who is a nurse prepared a rough draft of questionnaire items inspired by the literature. She also talked with a sample of faculty, residents, and students in primary care. She probed their experiences with chronic illness, asking them to express in their own words their personal thoughts about their patients. A panel of faculty in family medicine, internal medicine, geriatric medicine, nursing, pharmacology, and occupational therapy shaped her draft further. After pilot testing on a sample of students, the final version of the four-page Survey included 5 short-answer and 35 Likert-scale items.

Quantitative analysis provided valuable information about the validity of scores based on the Survey's Likert-scale items. After administering it to 704 freshmen and seniors in medicine and nursing in the spring and fall of 2007, we used correlation coefficients and principal components factor analysis to probe relationships in their responses.

We found one important factor comprising items such as "I enjoy working with patients' families," "I value the development of long-term relationships with my patients," and "I try to understand how it must feel for someone to have to live with a chronic illness." We used inferential statistics to examine cross-sectional differences on this factor, which was named "Personal Interest in Patients." Significant differences between the freshmen and seniors in both medicine and nursing in this initial cross-sectional study revealed that both groups on average tend to lose

study revealed that both groups on average tend to lose personal interest in patients and other survey questions related to chronic illness during their education. This supported the validity of the Survey because this trend is similar to patterns for related constructs such as patient empathy.⁵

Qualitative analysis of several short-answer items provided further support for the Survey's validity. One item asked students to list a few words that come to mind when caring for someone with a chronic illness. Content analysis identified 158 unique terms used in their responses, which we classified either as "Constructive/Supportive" reactions to chronic illness versus "Discouraging/Pessimistic." Constructive/Supportive responses included professional clinical responsibilities or positive emotions - "aggressive treatment," "patience," "compassion," "empathy," "understanding," "love," "hopeful," "caring," and "perseverance." Discouraging/Pessimistic responses included pragmatic realities and negative emotions, including "costly," "thankless," "frustrating," "exhausting," "sad," and "tiring." Students were classified as Supportive or Discouraging based on the majority of their words.

Overall, 47% of the students were classified as Constructive/Supportive, and 30% were classified as Discouraging/Pessimistic. The remaining 23% used a mix of Constructive/Supportive and Discouraging/Pessimistic words. We calculated mean scores on the Personal Interest in Patients factor identified in the quantitative analysis for the students classified as Constructive/Supportive and those classified as Discouraging/Pessimistic. The mean for students classified as Constructive/Supportive was significantly higher than the mean for those classified as Discouraging/Pessimistic. This provided cross-validation for the quantitative and qualitative parts of the Survey.

When asked to estimate the national cost of chronic illness, most students underestimated its economic impact. While the absolute accuracy of the frequently cited value of 75% of U.S. health expenditures⁶ is debatable, the students' average estimates of between 30% and 50% indicate that the vast majority of the estimates made by the students in this study were low in relation to widely held beliefs about the relative cost of chronic illness.

Implications: This study provided initial data on the validity of this evaluation tool. It also provided a baseline

assessment for graduates and new students in anticipation of curricular changes related to chronic illness. Since 2007 the Survey has been administered to students throughout the University at matriculation, end of year-1, end of year-2 and at graduation. It serves as one component of the longitudinal evaluation of outcomes for students in Jefferson's Health Mentors Program and other interprofessional initiatives.

References

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Announcements

Congratulations to JCIPE's Spring 2011 Interprofessional Education and Care Practicum Pilot Award Recipients:

1. Rickie Brawer, PhD, James Plumb, MD, MPH, Neva White, MSN, CRNP, CDE, Pamela Harrod Smith, BS, MS, David Madison, BS, MEd
Project: A Community Based Diabetes Self Management Education Program
Thomas Jefferson University Hospital, Center City: Community Health Department, Center for Urban Health
2. Marcia Levinson, PT, MFT, PhD, Martha Ankeny, BA, MEd, Caryn Johnson, MS, OTR/L, FAOTA
Project: Contemporary Therapeutic Aquatics for OT's and PT's
Thomas Jefferson University: School of Health Professions and Academic & Instructional Support & Resources (AISR)
3. Carol Carofiglio, RN, PhD, Carmen Sultana, MD, Ksenia Zukowsky, PhD, APRN, NNP-BC, Deborah A. Cruz MSN, CRNP, Jane Huffnagle, MD, Suzanne Huffnagle, MD, Patricia Constanty, MSN, CRNP
Project: Use of Obstetrical Simulation Drills to Improve the Perinatal Practice Environment
Thomas Jefferson University Hospital, Center City: Department of Obstetrics and Gynecology

To view project summaries, visit <http://jeffline.jefferson.edu/jcipe/development/>.



Jefferson Award for Excellence in Interprofessional Education

In recognition for outstanding contributions to interprofessional education three faculty awards were given by JCIPE to Nethra Ankam, MD, Department of Rehabilitation Medicine, Jefferson Medical College on June 1, 2011 and Leigh Ann Hewston, PT, MEd, Department of Physical Therapy, Jefferson School of Health Professions and Elena Umland, PharmD, Jefferson School of Pharmacy, on June 7, 2011.

