International Journal of Osteopathic Medicine (2014) 17, 61–65

ELSEVIER

International Journal of Osteopathic Medicine

www.elsevier.com/ijos

The self-directed osteopathic medical student: Bringing adult learning into the osteopathic manipulative technique lab

LeAnn D. Jons-Cox*

Department of Osteopathic Principles and Practices, Rocky Vista University College of Osteopathic Medicine, 8401 South Chambers Road, Parker, CO 80134, USA

Received 4 January 2013; revised 6 November 2013; accepted 27 November 2013

KEYWORDS
Adult learning;
Andragogy;
Lab;
Lifelong learning;
Medical;
Osteopathic manipulative;
Pedagogy;
Self-assessment;
Self-directed learning

Abstract Utilizing self-directed learning methods in the medical school setting has become an increasingly popular way to encourage students to be lifelong learners. With the ever expanding and rapidly changing body of medical knowledge and technology, physicians need to be able to seek out, access information, and keep abreast of changes in medicine. Medical students have been largely taught in a pedagogical environment characterized by passive lectures. Gerald Grow's Staged Self-Directed Learning Model is presented as a means to transition students to an andragogical educational format. In order to introduce andragogy into as many areas of undergraduate medical education as possible, a track-lab concept is introduced. In this model, second year osteopathic medical students self-assess their osteopathic manipulative technique educational needs and choose to either review previously taught techniques or learn additional techniques. This track-lab concept shows promise as a method of introducing self-directed learning to the osteopathic manipulative technique lab setting.

Introduction

The traditional medical school curriculum often leaves students passively absorbing facts rather than actively acquiring concepts or skills.[1] The traditional curriculum fosters dependent rather than independent learning. However, with the ever-expanding body of knowledge required in medicine and the biomedical sciences, medical students and physicians need to engage in career long self-directed learning.[2–4] Various adult

* Tel.: +1 720 875 2864; fax: +1 720 875 2859.
E-mail address: LJons@rvu.edu.

1746-0689/$ - see front matter © 2013 Elsevier Ltd. All rights reserved.
http://dx.doi.org/10.1016/j.ijosm.2013.11.003

learning theories such as andragogy, transformative learning, and narrative medicine have been proposed as ways to train students to become lifelong learners. Studies would help test the effectiveness of more self-directed techniques in medical education for learning clinical skills.[2] In order to identify whether these studies have been done, the author searched PubMed for articles treating self-directed learning in undergraduate medical education related to clinical or osteopathic skills.[5] Of the twenty-one articles identified in the search, nine focused on self-assessment, three on problem or case-based learning, two on competency testing, two on patient simulation, one on assessment, one on self-directed learning, one on peer-assisted learning, and two were not applicable. There were no articles addressing self-directed learning and osteopathic manipulative medicine education.

Students entering osteopathic medical school are typically young adults who have been educated in the passive lecture learning environment typical of pedagogy. Empirical studies have suggested that active adult learning, andragogy, produces better learning outcomes such as critical thinking, improved understanding and decision making,[6] academic achievement,[7] and increased curiosity, retention, recall, motivation, competence, and confidence.[8]

This article introduces the track-lab concept as a method of introducing the andragogical concepts of self-assessment and self-directed learning into an osteopathic medical curriculum. Improved teaching not only results in better educational outcomes but also encourages medical students to develop important lifelong learning skills, which are essential to their success as physicians in an ever-changing healthcare arena.

Self-directed learning is defined as "a process in which individuals take the initiative, with or without the help of others, in diagnosing their learning needs, in formulating learning goals, identifying human and material resources for learning, choosing and implementing appropriate learning strategies and in evaluating learning outcomes."[9] One promising method of introducing self-directed learning into the osteopathic manipulative technique (OMT) lab setting is the track-lab concept, in which students choose to learn new techniques or revisit previously learned ones. The Osteopathic Principles and Practices (OPP) faculty of Rocky Vista University College of Osteopathic Medicine (RVUCOM) has employed this method since August, 2012 and is evaluating its outcomes.

Methods

RVUCOM is located in Parker, Colorado, USA and matriculates 162 students each year. Its mission is "to educate osteopathic physicians who are dedicated to excellence in the practice of medicine, demonstrate integrity and professionalism in their lives, while providing ethical, compassionate, holistic and culturally competent Osteopathic medical care to their patients." RVUCOM recognizes the importance of utilizing adult learning precepts during this educational process in order to encourage these students to be lifelong learners. The concepts of self-assessment and choice were introduced into the second year OPP curriculum as a response to expressed dissatisfaction with the prior single-path educational process.

RVUCOM's OPP curriculum consists of traditional lectures and large-group labs during the first year. Topics taught include diagnosis and manipulative treatment of the extremities, spine, sacrum, and pelvis. The treatment modalities taught in the first-year curriculum are soft tissue, myofascial release, counterstrain, muscle energy, and high velocity low amplitude. The second-year OPP didactic curriculum primarily consists of interactive case-based discussions with a faculty facilitator. The labs are either large-group lab format or one-on-one labs. In the one-on-one labs, students are paired with a volunteer patient and a faculty member. The student performs a history and physical on the patient in an exam room, presents his or her findings to the faculty member, and the faculty member and student treat the patient together. The large-group labs focus on introducing techniques such as Still, facilitated positional release, balanced ligamentous tension, visceral, and osteopathy in the cranial field. Student feedback regarding the one-on-one labs was positive but comments on the large-group lab content were mixed. Some students wanted to learn these additional techniques while other students desired review of previously taught techniques, in order to become more confident and facile. The track-lab concept was designed to accommodate the educational requests of both groups. In short, the concept both accommodates and fosters self-directed learning.

At the beginning of the 2012—2013 academic year, 165 s-year students were given the option of learning new techniques in a 2-h lecture/lab format (Track 1) or of reviewing techniques in a small group, 1-h lab setting (Track 2). Faculty members were assigned to the Track-2 review groups but minimal instruction was given unless