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Advanced Physical Diagnosis: An Innovative Interprofessional Approach for Teaching Clinical Skills to Senior Medical Students

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Background: Physical examination remains a centerpiece in medical education teaching. There is, however, little formal medical education that introduces the differences in goals and perspectives of other health professions, such as occupational and physical therapy, inpatient examination and treatment. We developed a pilot innovative curricular module, nested in a preexisting advanced course to teach senior medical students the role of occupational therapy (OT) and physical therapy (PT) by way of a patient simulation activity in the context of a multidisciplinary examination and evaluation. This innovative teaching strategy assists medical students in making appropriate referrals for rehabilitative care.

Methods: This one-month Advanced Physical Diagnosis course for senior medical students is an elective offered 3 times per year. It consists of 20 separate symptom-based modules of physical examination teaching. Each 4 hour teaching module consists of a didactic review of the basic exam, a context of history, a description and demonstration of more advanced techniques followed by a demonstration of pathologic outcomes using standardized and simulated patients.¹ For one module, a videotape was created of an actual patient with Parkinson's disease being examined by an MD, an OT and an PT. After a brief lecture describing the scope of practice for each of these three professions under the World Health Organization (ICF) Model² medical students watched the videotaped examination and evaluation sessions. The interprofessional team of faculty (including MD, OT and PT) led a discussion comparing and contrasting focus and intent for each of these patient evaluations. A pre and post survey of knowledge about OT and PT was given to the medical students to assess the impact of the 4-hour session on medical students' knowledge about the roles and perspectives of OT and PT.

Results: A total of 23 students participated in the module. Twenty three pre survey and 16 post survey responses were collected and analyzed. Prior to the course, 100% of the medical students had heard of both physical and occupational therapy. Students also identified a total of 7 broad areas of focus for a physical therapy intervention and 7 for occupational therapy intervention. Examples were strengthening muscles, improving gait, improving gross motor function (PT) and increasing ADLs, improving fine motor function and increasing coordination (OT).

At the end of the class, students identified 8 additional areas of focus for physical therapy (i.e. cardiopulmonary and lung capacity, trunk mobility, transfers); 5 for occupational therapy (i.e. cognition, driving, lifestyle adaptation); and 9 areas that could trigger a referral for both therapies (i.e. weakness, safety). A review of the responses on the post class survey indicated that the medical students learned specific issues that would trigger a referral to either therapies. For example, students identified the following triggers for referral: general or localized weakness, trouble with memory, patient unable to do things they used to enjoy and cognitive assessment.

Conclusions: This interprofessional education session, employing a case-based videotape, was successful in illustrating to senior medical students the roles of OT and PT in patient management, and in increasing their awareness of the types of patient problems that would warrant referral for OT and PT services. The team is developing learning activities for future modules for medical students to teach the role of occupational and physical therapies in interprofessional health care.

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