



A RATIONALE FOR LEARNING PHYSIATRIC
PRINCIPLES IN MEDICAL SCHOOL



Canadian Association of Physical Medicine and Rehabilitation Position Paper

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Introduction

In today's climate of fiscal restraint, there is a risk of sub-optimal medical care of persons with disability. Canada is an expansive country, with its population scattered in rural and urban areas. Physicians and surgeons need to adequately understand issues faced by persons with disability, and care for them appropriately in their own communities.

Therefore, it is essential to include adequate physiatric principles in the medical undergraduate curriculum. Physiatric principles include key concepts in neurological and musculoskeletal assessment and treatment (e.g., diagnosis and treatment of back pain) and rehabilitative care management (e.g., performing a functional inquiry to assess the impact of illness and injury on daily activities).

Regardless of practice type and specialty, the majority of physicians and surgeons will encounter and care for persons with disability. New medical trainees are ill equipped to work with this population, as most medical schools do not emphasize physiatric principles in the undergraduate curricula. Literature supports the need to include rehabilitative care teaching in the undergraduate curriculum of medical schools, yet this

teaching lags behind curative medical education¹. Little guidance is available on how best to integrate such teaching into the undergraduate medical education curriculum.

This paper examines the rationale for including psychiatric principles in the undergraduate curriculum; reviews past and current efforts in integrating these principles in medical schools; and, proposes further strategies to assist Physical Medicine and Rehabilitation (PM&R) undergraduate program directors/coordinators and their respective undergraduate deans with ongoing curriculum integration to assist in role development in medical school (e.g. physician as communicator or collaborator).

Learning Rehabilitative Care - the Canadian Experience

Rehabilitative care is defined as the study of the ways illnesses and injuries interfere with human function, and strategies available to help patients overcome or circumvent barriers to optimal function¹. The scope of rehabilitative care includes but is not limited to the following¹:

- Approaching patients as whole persons in the context of their families and communities
- Emphasizing the concept of quality of life
- Measuring treatment outcomes, using criteria that quantify human function
- Using teams of caregivers who collaborate to extend the reach of traditional acute, chronic and continuing medical care
- Promoting health and preventing disease, injury, and disability

- Preparing physicians to participate in issues concerning health care and public policy

Various task-forces and workgroups recommend the inclusion of rehabilitative care in the undergraduate medical curricula to prepare its trainees to better meet the medical, emotional and psycho-social needs of persons with disability^{1,2,3}.

PM&R specialists or physiatrists are actively involved in the education of medical students. Two national surveys were completed fifteen years apart, each by a member of the Canadian Association of Physical Medicine and Rehabilitation (CAPM&R) education committee (Barton 1986, Wee 2001)⁴. They were completed independently, with the intent of answering similar questions.

In 1986, thirteen Canadian medical schools that involved physiatrists in undergraduate medical education were surveyed. Responses were obtained from all schools surveyed. Physiatrists were primarily involved in teaching seminars/lectures, clinical skills, problem based learning tutorials, and supervising elective/selective rotations. Only two medical schools had a mandatory rotation in PM&R. Students were exposed to 4.4 hours (range 0-17) of formal lectures by physiatrists⁴.

In 2001, Canadian PM&R undergraduate program directors in medical schools with PM&R residency training programs, either formerly or currently, were surveyed. Nine of 11 surveys were returned. From the 7 schools where results could be compared with the 1986 survey, there was an increase of 14 academic physiatrists, though there was only 1

additional full-time position in 2001. Teaching involvement largely remained the same, though there was an increase in teaching within ambulatory physiatry clinics and summer research positions by 2001. The number of hours of medical student involvement ranged from 13 to 72 per annum. In some schools, hours increased by up to 8 hours, while in others, they decreased. The number of programs with mandatory rotations in Physiatry remained unchanged⁴.

Table 1 outlines course names and other activities with physiatrist involvement in 2001. In 2004, we do not anticipate major changes in the above pattern.

Table 1

Medical Undergraduate activities with exposure to Physiatrists⁴.

Interviewing skills, Medicine & Society

Rehabilitation Medicine, Major disabilities, Long term disability

Musculoskeletal and General Physical Examination

Cardiac Rehabilitation

Neuro-locomotion, Applied Neurophysiology (Electrodiagnosis)

Applied anatomy

Functional Assessment

Low Back Pain, Pain

Amputees

Problem Based Learning Tutorials

Summer research projects

Electives/Selectives

Career Night

Website development

Recommendations for rehabilitative care integration

The 2001 survey⁴ indicated that all responding undergraduate program directors would support the development of guidelines for, and early exposure to psychiatric principles in the Canadian undergraduate medical education curriculum, not only to raise awareness of the specialty, but also to improve care of persons with disability.

Within Canada, projects such as Educating Future Physicians for Ontario (EFPO)^{5,6} have established the public's expectations of physicians, expanding the traditional physician roles of scientist and professional to include other non-traditional roles: communicator, healer, gatekeeper, and health advocate. The College of Family Physicians of Canada acknowledges the importance of community based education in their Standards for Accreditation of Residency Training Programs.⁷ They promote the principles of home care for patients with chronic illness, and, of knowledge of, and willingness to draw upon community resources such as medical consultants, other health professionals, and community agencies.

A working group of the Royal College of Physicians and Surgeons of Canada (RCPSC) similarly established the CanMEDS roles⁸ – seven competencies expected of graduating

Canadian specialists. Because of the nature of the specialty, PM&R is well positioned to contribute to the undergraduate curriculum with respect to these non-traditional physician roles. Psychiatrists are involved regularly and actively in collaborative team-based person-centred assessments and consultations, in advocacy situations (e.g., securing funding for technical aids), in multi-physician care requiring regular and clear communication, and in inter-disciplinary patient management.

The Liaison Committee on Medical Education (Canada and the US) recommends the inclusion of psychiatric principles in medical curricula.² In the U.S., the Association of Academic Psychiatrists Workgroup made recommendations for incorporating PM&R exposure in medical school, in their White Paper³. We have reviewed these recommendations and support them. (See attached articles)

Currie¹ has further advice for each medical school:

- 1) study the effectiveness of its curriculum in readying students for rehabilitative care
- 2) apply items related to rehabilitative care in standardized tests
- 3) weave the impact of activities and participation into the basic science curriculum and problem based learning cases
- 4) develop curricular tools to teach rehabilitative care to medical students.

Interdisciplinary efforts may be more effective, and exploration of such has begun elsewhere.⁹ Providing part of the undergraduate education experience in community

settings could be informative, and a means of involving community participation. Such community based education in a new setting presents patients in the context of their daily lives, and facilitates a person-centred approach.¹⁰

Physicians and surgeons need to understand how to empower and assist persons with disability and their caregivers in their communities, by being aware of potential barriers, resources, and ways to access help. They need to recognize their professional limitations, and make appropriate referrals to involve rehabilitation specialists, other health professionals or community organizations such as Independent Living Centres.

Strategies that medical schools could pursue to enhance and integrate the learning of physiatric principles may include but are not limited to:

- Developing a core block in Physical Medicine and Rehabilitation during the preclinical undergraduate years
- Incorporating physiatric principles in problem-based learning and patient-assisted learning cases in existing blocks, in conjunction with block organizers
- Involving allied health professionals, housing and funding agencies, in specific educational activities related to advocacy for persons with disability, to promote inter-professional exposure and awareness
- Involving physiatrists and other health professionals caring for persons with disability in planning committees for the core program or individual existing blocks or courses (Neurology, Rheumatology, Orthopedics)
- Involving persons with disability in interviewing courses for medical students

- Including specific rehabilitation concepts in the traditional lecture (e.g., bladder dysfunction; prevention of medical complications post stroke or spinal cord injury)
- Emphasizing the importance of functional inquiry and impact of illness when reviewing medical student histories
- Offering specific lectures on learning how to care for persons with disability (examination in a wheelchair; establishing an accessible medical office)
- Becoming involved in physician skills development courses in the pre-clinical years: approach to the musculoskeletal and neurologic physical examination
- Developing specific workshops provided by physiatrists on professionalism, ethics, team functioning and communication skills training
- Reviewing Medical Council of Canada Qualifying Examination objectives to determine how physiatrists may be able to contribute to achieving them in the pre-clinical and clinical undergraduate years
- Evaluating effects of any curriculum changes on knowledge, skills and attitudes in rehabilitative care amongst graduating students
- Sharing with other medical schools any successes and challenges in incorporating physiatric principles within the curricula

We recognize that each Canadian undergraduate PM&R program must develop a strategy that considers local needs and resources while incorporating physiatric principles in the undergraduate medical school curriculum. Perhaps only a few of the above strategies are feasible or sustainable.

In conclusion, this statement supports teaching psychiatric principles in the undergraduate medical education curriculum. This paper presents potential strategies for meeting the learning needs of students. Much has been published on the subject. We need to move beyond recommendations and press-on with implementation, encouraging our medical schools to better prepare our medical school graduates in caring for persons with disability.

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