Implementation of a Four Year Rehabilitation Curriculum for Medical Students

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In 2009 the Vice-Dean of Undergraduate Medical Education modified the 4th year curriculum by eliminating the required clerkship in Rehabilitation Medicine, and the Department was tasked with the creation of a four year curricular thread. While disappointing, this was a blessing in disguise. For years, we attempted to fit a great deal of content into an ever decreasing timespan, to increasingly disinterested students. Our teachers were also burned out with the sheer volume of students.

Through collaboration with other course directors, we inserted content where it fit the developmental needs of the students. We were also able to introduce students to physiatric role models earlier in training. The curriculum development had one guiding goal: "Students should be able to explain how a person's functional abilities intersect with environment and societal roles to affect quality of life. "

In the preclinical years, we run or participate in physical exam workshops, have introduced the usage of the International Classification of Functioning, Disability and Health (ICF) to the two year longitudinal interprofessional education program; found ways to increase required exposure of students to patients with a wide range of disabilities, are present in the anatomy lab, and run a panel on access to care for individuals with disabling conditions. In addition, faculty members are involved in small group experiences with the students in the doctoring course. In the clinical years, we have required curriculum in the internal medicine, neurology, and family medicine rotations; and also run a required half day devoted to chronic pain.

For more interested students there is both a 3rd year and a 4th year elective in Rehabilitation Medicine, and an interdepartmental outpatient sub-internship in Musculoskeletal Medicine. None of this would be possible without the support and guidance of the Vice-Dean, the Department Chair, and the sustained collaboration with course directors.

Prior PM&R presence

First Year
1. **Neuroscience**
   a. **Manual Muscle Testing Workshop**
   b. **Electrophysiology Lecture**

Fourth Year
1. **Required 1 week clerkship in PM&R in the 4th year paired with Neurology**
   a. **Included an Orientation Day with**
      -Peripheral Nervous System Examination Workshop
      -Lectures on Spinal Cord Injury
      -Lecture on the ICF

Guiding Principles When Developing the Program

Goals:

1. Students should be able to explain how a person's functional abilities intersect with environment and societal roles to affect quality of life.

Objectives:

Knowledge

1.Students should understand environmental limitations that prevent access to primary care for persons with disability

2.Understand the concept of prevention of predicable problems based on knowledge of the "natural history" of a disorder, using a rehabilitative care model.

Attitudes

1.Students should understand and appreciate the power of a functional-outcomes-based approach to return patients to their usual activities and maximize quality of life.

Skill

1.In routine clinical evaluations, students should include items related to functioning of their patients in their usual environments and roles, document the findings in the medical records and develop treatment plans directed toward increasing participation in life activities

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2.Students should demonstrate skill in neuromusculoskeletal and functional examination.

3.Demonstrate the ability to formulate rehabilitation treatment plans

Adapted from:
Currie DM, Atchison JW, and Fiedler IG. "The Challenge of Teaching Rehabilitative Care in Medical School." Acad. Med. 2002;77:701–708.

Present Day PM&R presence

First Year

1. **Anatomy course**
   a. **Attending or resident presence in all upper and lower limb dissection labs to provide guidance and functional correlates.**

2. **Doctoring course**
   a. **Lecture and panel on physical barriers to care for the disabled and the ADA**
   b. **20 students spend 40 hours a year with PM&R attendings as small group leaders**
   c. **Listen to the life stories of 3 people with disability on their 3rd day of medical school**
   d. **Health Mentors Program**
      -2 year longitudinal interprofessional education program where they complete 4 projects over 2 years with a person living in the community with a chronic condition, Including many people with physical disability
      -Use the ICF

3. **Neuroscience Course**
   a. **Manual Muscle Testing Workshop**
   b. **Electrophysiology Lecture**

Second Year

1. **Physical Diagnosis Course**
   a. **Provide teachers for already established MSK physical exam workshop**

2. **Health Mentors Program**

Third Year

1. **Required curriculum**
   a. **Family and Community Medicine**
      -Herbison's 5 Minute Back Examination Workshop
      -Patients With Disabilities as Teachers Panel
   b. **Internal Medicine/Neurology**
      -Peripheral Nervous System Examination Workshop
      -Lecture on Cardiac Rehabilitation and Deconditioning Syndrome
      -Lecture on Stroke Rehabilitation
   c. **Interclerkship on Chronic Pain**
      -Half day devoted to Chronic Pain, run like a conference. Students can choose four of 15 to 18 topics

2. **Selective Rotation in Rehabilitation Medicine**
   a. **Three week experience with weekly didactics and a case presentation asking for the development of a rehabilitation plan to achieve a participation based patient centered goal.**

Fourth Year

1. **Elective Rotation in Rehabilitation Medicine**
2. **Interdepartmental Musculoskeletal Outpatient Subinternship**
   a. **Collaboration with Orthopedics, Sports Medicine, PM&R, and Podiatry**