



MEETING STUDENTS WHERE THEY ARE: EDUCATING STUDENTS WITH VARYING LIFE EXPERIENCE ABOUT THE HEALTH CARE NEEDS OF PERSONS WITH DISABILITIES

¹Department of Family Medicine and Community Health, ²Department of Physiology, Linda M. Long-Bellil¹, Julie A. Jonassen², Mai-lan Rogoff^{3,4}, Susan V. Barrett³, Candace Cassin⁵, Dee O'Connor¹, Martin H. Young⁴

³Office of Medical Education, ⁴Department of Psychiatry, University of Massachusetts Medical School, Worcester, Massachusetts and

⁵The Massachusetts Department of Mental Retardation

Abstract

Purpose: Medical students enter preclinical years with varying levels of experience with individuals with disabilities. Previous experience has been shown to have a significant impact on attitudes toward this population and, hence, has the potential to impact patient care (Tervo et. al, 2002). This study examined the impact of a one-day Interclerkship on students' self-reports regarding specific components of their attitudes, by level and type of previous disability experience.

Methodology: Students met with individuals with physical or cognitive disabilities and their families in small groups to discuss their health care needs and experiences. Students also viewed a short film regarding effective methods of communication with and modifications to the clinical encounter for individuals with physical disabilities. Afternoon workshops covered a wide array of topics including assistive technology, sexuality/childbirth, mental health, community resources and bladder management. Students reported levels of experience cognitive/physical: friends, relatives, schoolmates k-12 and college. 153 (77%) students over two years completed pre- and post-Interclerkship self-assessments that rated attitudes about medical care for patients with disabilities, using a 14-item 5-point Likert scale; means were compared by paired t-test. Students also provided course feedback.

Results: There was a highly significant ($p < 0.001$) pre-to-post improvement overall in mean scores for students' self-assessed awareness of healthcare issues. Significant impact was seen for students at all levels of experience. A trend toward greater improvement among students reporting no previous disability experience was observed.

Conclusions: A single-day Interclerkship improved the attitudes of students' reporting all levels and types of disability experience.

Overview and Background

Since AY1995-1996, Interclerkships—short, intensive 1-day courses interspersed between clerkship to introduce 3rd-year UMass medical students to subjects that transcend traditional biomedical domains and which have historically been underrepresented in medical education. Interclerkships emphasize acquisition of new knowledge and skills not previously taught in the medical school experience.

The impact of disabilities on medical care clearly represents an area of profound importance to the practice of medicine, yet this topic had been poorly represented in the undergraduate medical curriculum. A collaboration between the Medical School and the Department of Mental Retardation resulted in an Interclerkship addressing cognitive disabilities beginning in AY 2000/2001 until a recent collaboration gave rise to a new, multidisciplinary, cross-disability Interclerkship, *Working with People with Disabilities in the Clinical Setting*, inaugurated in AY2004-2005. Here we describe the curriculum and its impact on students' knowledge, attitudes, skills and confidence in addressing medical and advocacy issues for patients with disabilities. Data from the AY2005/2006 and 2006/2007 program are presented; they are comparable to the outcomes obtained from the AY2004-2005 Interclerkship.



Interclerkship Description and Evaluation

Students participated in lectures and numerous small group workshops during this one day Interclerkship. In facilitated small groups, students met with individuals with physical or development disabilities, their families and their community advocates, sharing a dialogue about healthcare and access concerns. Other workshops, taught by clinical and community experts, addressed assistive technology, parenting challenges, bladder management issues, spinal cord injuries, mental health, community resources, sexuality, and end-of-life care. Students and completed pre- and post-Interclerkship self-assessments that rated their knowledge, skills, and attitudes about medical care for disabled patients and they indicated the level of their prior experiences with individuals with cognitive or physical disabilities in their personal lives or at school. Scores on this 14-item 5-point Likert scale were compared by paired t-test. Students also provided programmatic feedback about the course, using a 5-point Likert scale used for all Interclerkship courses.

Working with People with Disabilities in the Clinical Setting: Learning Objectives

This Interclerkship will enable students to:

- Approach people with physical and cognitive disabilities in a manner that builds trust and confidence.
- Understand the challenges that people with disabilities and their families experience when they seek medical care
- Anticipate potential secondary medical conditions related to a disability and work as partners with their patients to maximize health and well-being.
- Modify the clinical encounter when necessary to work with a person with a disability.
- Identify resources in the community.

Working with People with Disabilities in the Clinical Setting: Course Schedule

Breakfast, pretest	Welcome; Keynote: Caring for people with disabilities	Small group dialogues w/ students, Individuals, families: two sessions	Lunch, movie on access to medical care	Student-selected small group workshops: two sessions	Post-test
--------------------	-------------------------------------------------------	------------------------------------------------------------------------	----------------------------------------	------------------------------------------------------	-----------



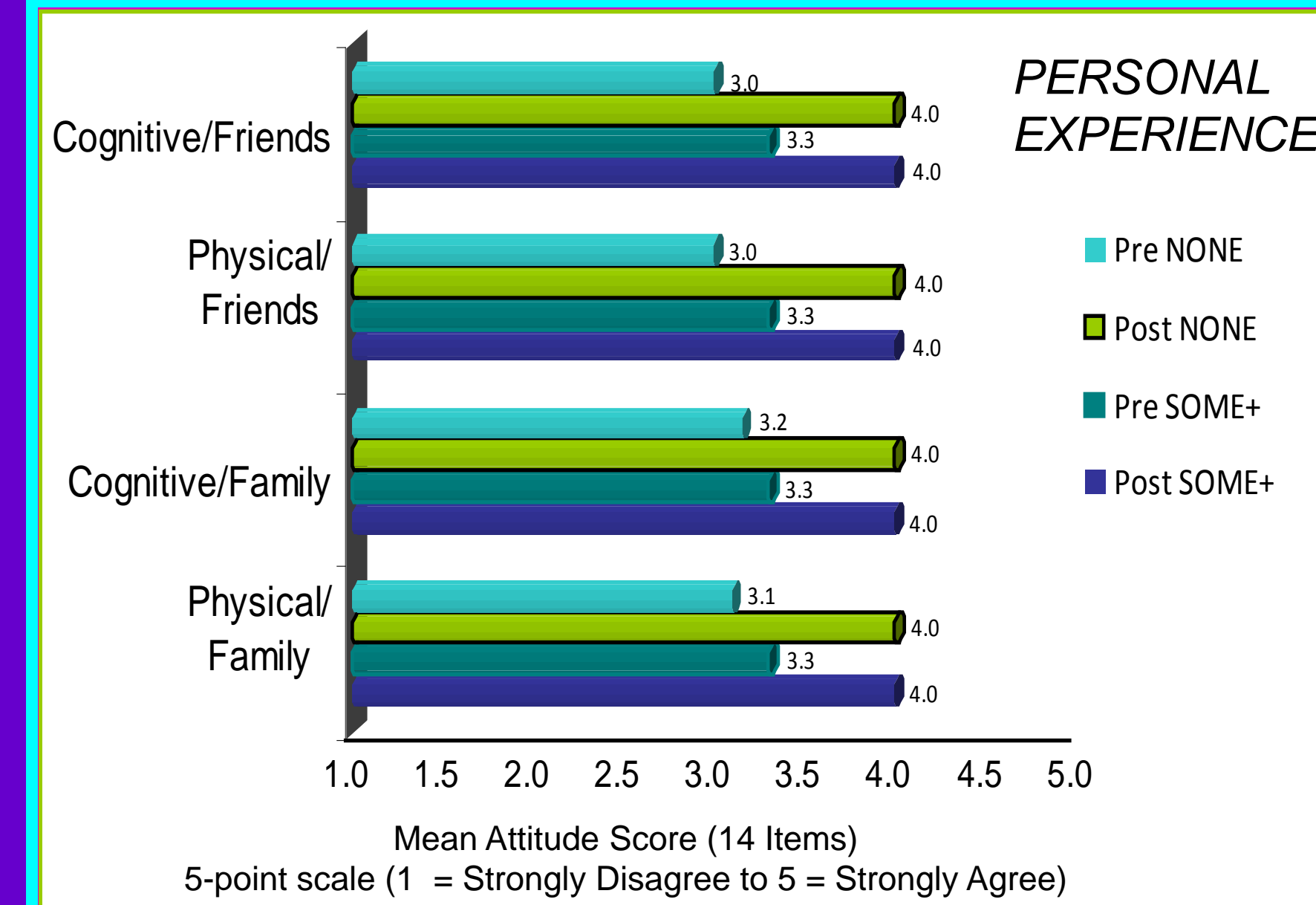
Interclerkship Workshops: Students select two

Workshop	Description
Childbirth and Childrearing for People with Physical Disabilities	This session considers the joys and the challenges of childbearing and childrearing with a physical disability. The presenters will describe how physicians have worked with them to achieve positive outcomes.
Sexuality and People with Cognitive Disabilities	People with mental retardation have the potential to experience their sexuality just as anyone else. Their ability to understand themselves as sexual beings can be compromised by cognitive disability, however, and the risk of abuse is also greater. Careful education and support by healthcare professionals, families, teachers, and others who assist them will result in better self esteem, sexual health, and personal safety. This session focuses on the physician's role.
Sexuality and Physical Disability: The Ins and Outs	Basic concepts of sexuality and sexual function of persons with disabilities will be examined through a case study presentation and informal discussion. Please bring a discussion question related to sex and disability (from a social, physical or emotional context).
Working with Individuals with Spinal Cord Injuries	This workshop discusses the long-term physical and psychosocial effects of spinal cord injury and describes management and treatment options that enhance quality care to individuals with spinal cord injury.
MR/MI Dual Diagnosis	An overview of the UMMHC Neuropsychiatric Disabilities Team, a specialized, locked short-stay inpatient psychiatric unit serving only individuals with co-occurring developmental disabilities and mental health disorders. Case studies highlight interdisciplinary assessment and multimodal (psychiatric, medical and behavioral) treatment strategies.
Finding Community Resources	This workshop discusses issues to be considered when referring a patient to a community resource. For instance, is the resource is "disability-based" or "inclusive"? Focus will be on resources for children with autism.
Assistive Technology	What is available in the way of assistive technology to help patients with communication, mobility, positioning, and everyday tasks? This session will introduce students to both low and high tech options in assistive technology, and provide resources for how to access further information including the MD's role in writing referrals for assistive equipment.
Ethics and End of Life Care	People with disabilities sometimes face unique challenges and situations where there might be disagreement concerning medical treatment decisions. This session uses end-of life case studies involving people with disabilities to build on knowledge students already have of the ethics and ethical principles relevant to this topic.
Bladder Management in Disabled Populations	People with disabilities often contend with issues of urinary incontinence, many of which can be resolved with good medical interventions. Participants will gain a basic understanding of micturition physiology, appreciate the scope of urinary incontinence in disabled populations, and understand various management options (e.g. behavioral techniques, medications, catheters, surgery).
The Physician's Role in Special Education Decisions	For children with special health needs, health care is often delivered in educational and other settings. Medical monitoring, medication administration, assistive devices, and behavioral plans are all issues that can arise. This session discusses the physician's role in the student's Individual Educational Plan (IEP) and how physicians can partner with schools to assure children's health and well-being.

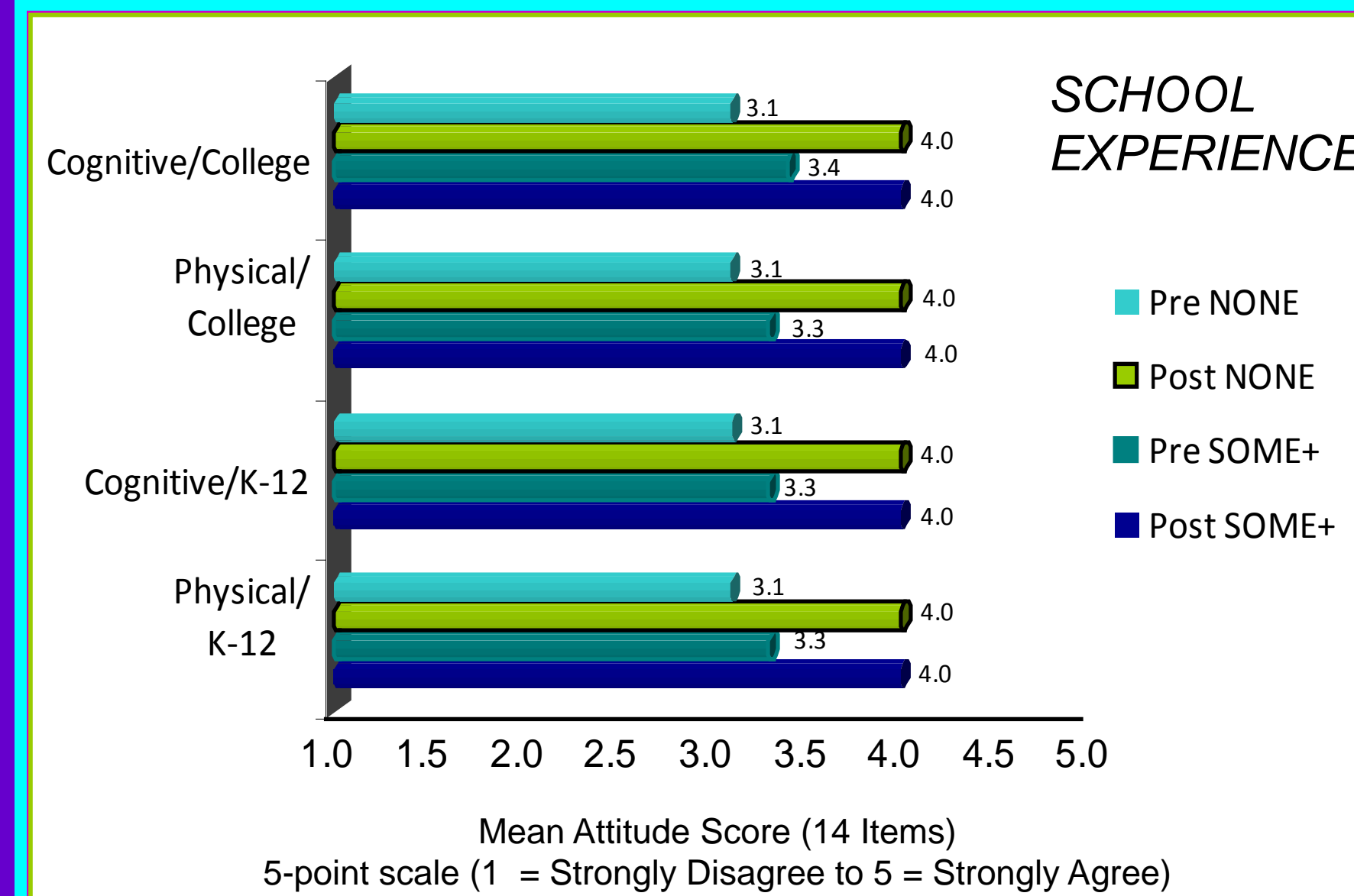


Results

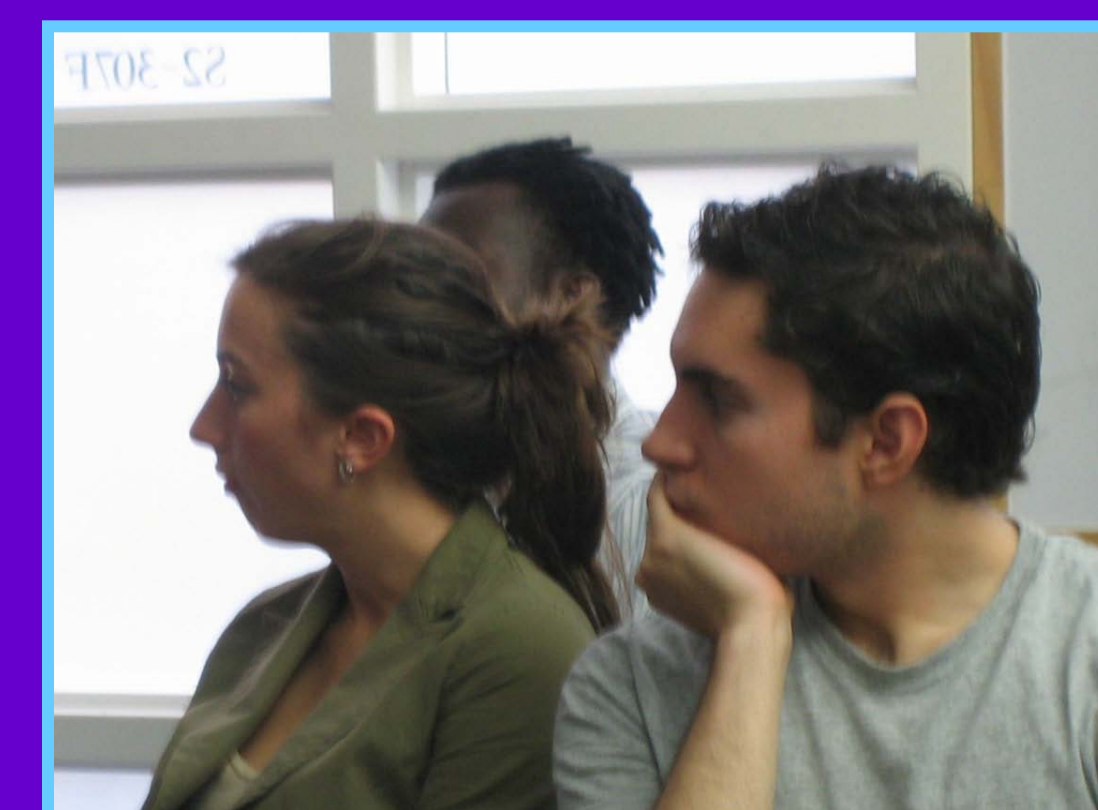
Significant Pre- to Post- improvement in self-assessed attitudes, knowledge and skills, stratified by level of experiences with cognitive or physical disabilities in friends or family



Significant Pre- to Post- improvement in self-assessed attitudes, knowledge and skills, stratified by level of experiences with individuals with cognitive or physical disabilities in K-12 or college



Conclusion: Students self-assessment of their attitudes, knowledge and skills changed significantly ($p < 0.001$, t-test) from pre- to post-test regardless of their prior level of disability experience or disability type.



Pre- and Post- Interclerkship Assessment Scale

5-point Likert scale: 1 (strongly disagree) to 5 (strongly agree)

- 1- I am aware of what primary care providers need to know when working with people with disabilities: *Cognitive*
- 2- I am aware of what primary care providers need to know when working with people with disabilities: *Physical*
- 3 - I know how to access information on resources (such as community services, family supports, etc.) which would be relevant to patients with disabilities: Cognitive
- 4- I know how to access information on resources (such as community services, family supports, etc.) which would be relevant to patients with disabilities: Physical
- 5 - Medical care providers have an impact on the lives of people with disabilities in areas beyond health care: *Cognitive*
- 6 - Medical care providers have an impact on the lives of people with disabilities in areas beyond health care: *Physical*
- 7 - I know how to modify the clinical encounter when necessary for working with a person with disabilities: *Cognitive*
- 8 - I know how to modify the clinical encounter when necessary for working with a person with disabilities: *Physical*
- 9 - I am aware of how my own experiences and beliefs about people with disabilities affect my work with people in the community: *Cognitive*
- 10 - I am aware of how my own experiences and beliefs about people with disabilities affect my work with people in the community: *Physical*
- 11 - I am aware of the challenges that people with disabilities may experience when they seek medical care: *Cognitive*
- 12 - I am aware of the challenges that people with disabilities may experience when they seek medical care: *Physical*
- 13 - I am aware of the challenges that family members of people with disabilities may experience when they seek medical care for their loved one: *Cognitive*
- 14 - I am aware of the challenges that family members of people with disabilities may experience when they seek medical care for their loved one: *Physical*

Positive Outcomes and Strong Student Feedback

This single-day Interclerkship improved third year medical students' self-assessed knowledge, attitudes and skills on providing appropriate medical care for disabled patients. 89% of participating students agreed that this Interclerkship provided new knowledge and skills not covered elsewhere in medical education and 97% agreed that this topic is essential to their training as physicians. Students offered many favorable comments about the experience, excerpted below:

"Great exposure, made me think, please do not change the interclerkship."
"Great topic."
"Spinal cord workshop – very USEFUL CLINICAL info – very useful."
"Very pertinent and relevant info that is not obtained elsewhere in the curriculum."
"I liked the stories about real patients and how different accommodations helped one to work with them."
"Good to have patients' experiences. Relevant to future healthcare."
"One of the best interclerkships. Good small groups."
"Definitely important to drill through the point of making no assumptions with a person with disabilities, to view their specific (individual) challenges and desires, rather than pigeonhole them into a group. This was overall a GREAT day, thank you."

Acknowledgements

We would like to thank the individuals and their families from the community who shared their stories with students in this Interclerkship. We are also grateful to the many faculty from UMass Medical School, the Massachusetts Department of Mental Retardation and from the community who offered workshops and facilitated the small group dialogues between students and patients.