Rehabilitation professionals: Making a difference in people's lives

Annette Majnemer OT, PhD, FCAHS
Director and Associate Dean
School of Physical & Occupational Therapy
McGill University

Objectives

- To understand the roles and functions of PT, OT and SLP
  - Case vignette
- To appreciate the scope of practice
  - Populations
  - Practice settings
  - Roles

Rehabilitation professions:

The time is now!

- ✓ Impact on individuals/society
- ✓ High societal need
- ✓ High demand in the job market

➢ Disclaimer: I am an OT!

WHAT IS PHYSICAL THERAPY?

What is PT?

Examples of areas of practice: PT

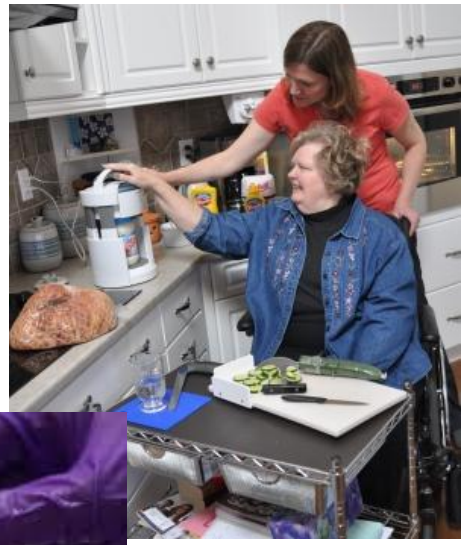
- Sports, athletic training
- Musculoskeletal health
- Neurorehabilitation
- Pelvic muscle dysfunction
- Cancer rehabilitation, pain management
- Cardiorespiratory health
- Health promotion

WHAT IS OCCUPATIONAL THERAPY?

What is OT?

Examples of areas of practice: OT

- Neurorehabilitation
- Amputees, arthritis
- Burns
- Mental health, PTSD
- Driving rehabilitation
- Ergonomic/workplace
- Degenerative disorders
- School performance



WHAT IS SPEECH-LANGUAGE PATHOLOGY?

What is SLP?

Examples of areas of practice: S-LP

- Hearing impairments
- Language delays, fluency
- Swallowing disorders
- Social communication skills
- Literacy

Commonalities across professions

- Health and well-being ultimate goal
- Managing lifelong conditions, health promotion
- Assess, intervene, prevent, promote
- Therapist (direct/indirect intervention), manager, program developer, researcher or educator
- Focused on patient needs, family priorities
  - All age groups (birth to elderly)
- Applying research in practice
  - The ‘art’ and the ‘science’ of practice

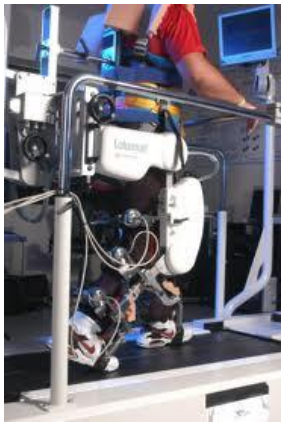
Use of technologies in rehabilitation

- Electrotherapy; transcutaneous electrical nerve stimulation
- Video fluoroscopy, ultrasound
- Virtual reality
- Assistive technologies
- Augmentative and alternative communication

- On the horizon
  - Brain stimulation
  - Robotics







Where do we work?

- Hospitals (all levels of care), chronic care facilities, rehabilitation centres, private clinics, community/social agencies, group homes, correctional institutions, primary care, schools, universities, industry (insurance, architecture, rehab companies), government or are self-employed





CASE VIGNETTE

Newborn

- Baby girl Gordon was born at 28 weeks gestational age, 980 grams, conceived by IVF. Required intubation and ventilation for 3 weeks. At 2 weeks, ↑HC, US revealed Grade III IVH, subsequent MRI showed bilateral asymmetric (>R) periventricular leucomalacia, greater on the right. At 34 weeks CA, baby is lethargic, hypotonic and not feeding well.

Primary goals of rehabilitation

- Assess neurobehavioral status
- Prevent contractures
- Promote airway clearance
- Facilitate oral feeding
- Early intervention
- Educate/support families

Neonatal Intensive Care Unit (NICU)

- Primary role: Diagnostic, consultative

The rehab team: NICU

- Roles will depend on local expertise and institutional traditions
- All three involved in Neonatal Follow-up programs
  - Developmental surveillance
  - Family education

Occupational Therapy

- Standardized neurobehavioral assessment
- Positioning techniques
- Feeding interventions
- Early developmental stimulation
  - State regulation, auditory/visual orienting, motor symmetry, antigravity movements

Physical Therapy

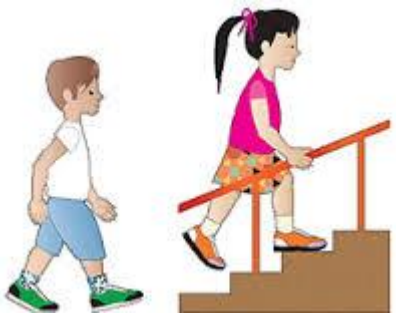
- Neuromotor surveillance and positioning
- Airway clearance

Speech-Language Pathology

- Feeding and swallowing (in some centres)

Preschooler

- Jessica is now a 3.5 year old with cerebral palsy, spastic diplegia subtype (GMFCS level II; MACS level II), with greater hypertonia on the left side. She has some delays in acquisition of concepts and perceptual skills and has moderate dysarthria. She is a very warm and engaging child, who enjoys playing with her peers at preschool.



Primary goals of rehabilitation

- Maximize walking, hand function
- Promote independence in self-care activities
- Improve language fluency
- Acquire pre-academic skills
- Support families
  - Preschool program

Rehabilitation Centre

- Primary role: Intensive intervention

The rehab team: Rehabilitation centre

- Group interventions
  - Constraint-induced movement therapy (CIMT) and hand-arm bimanual intensive training (HABIT)
- Blocked therapies
  - Alternate the focus of intervention (primary therapist)
- Plan for school placement

Physical Therapy

- Gross motor functioning
  - Walking, stairs
  - Endurance, longer distances
  - Different environments
  - Mobility aids
- Intensive PT following LE botox injections

Occupational Therapy

- Developmental, school readiness skills
  - Practice/feedback, training
- Hand function (HABIT)
- Self-care skills
  - Independence in eating, toileting, dressing, grooming
  - Transient use of aids/adaptations

Speech-Language Pathology

- Articulation is weak, low volume
  - Speech remediation exercises
- Language delay
  - Vocabulary
  - Basic concepts

School age

- Jessica is 7 years old and integrated into a regular school in her neighbourhood. She has some mobility challenges and uses a walker for long distances. Writing, mathematics, spelling and reading are below age level. She enjoys computer games and playing with her friends. She goes to swimming classes but would like to participate in other physical activities, although difficult for her.

Primary goals of rehabilitation

- Maximize functional mobility and independence in activities of daily living at the home, school and community
- Focus on academic tasks
  - Writing
  - Literacy
- Collaborate with families to promote leisure participation

School system

- Primary role: Consultant to teachers and parents

The rehab team: School system

- Redirect from developmental (training) to functional (adaptive) approach
- Education focus: Consultation to teachers
  - Modify task and environment
  - Practice strategies for new tasks
- Consultation to families
  - Leisure and recreation (extracurricular)
  - Transport, mobility aids (new environments -> autonomy)
  - Home adaptations

Speech-Language Pathology

- Language fluency and comprehension
- Reading - decoding, comprehension
- Mathematics concepts
- Train teacher, teaching aids

Occupational Therapy

- Handwriting training
  - Use of technical aids
- Adaptations for activities of daily living (lunch, bathroom, locker, gym)
- Evaluation of leisure preferences
  - Adapted sports programs
- Train teachers
- Consult with families regarding home environment needs

Physical Therapy

- Mobility
  - in the school environment
  - in the community environment (with families)
- Fitness program - Importance of muscle strengthening
- Virtual reality (Wii, Kinect)

Adolescent

- Jessica is now 13 years of age and is in high school. She is experiencing more difficulties with long distances and fatigues easily. Although she still has some learning challenges (reading, writing), she is a highly motivated student and is performing well academically. She likes to go to the movies with her friends and hanging out. She would like to be more independent in personal grooming as her mother still helps her. She enjoys sailing and would like to try skiing.

Primary goals of rehabilitation

- Physical health, conditioning
- Independent in ADLs
- Academic success
- Community/social participation
- Family support

Community

- Primary role: Consultant to families; Program planner

The rehab team: Community

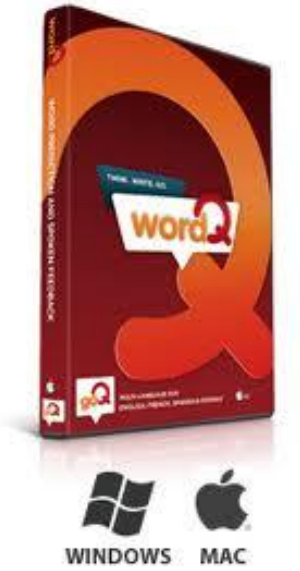
- Primary focus on independent living skills, employment opportunities, general health
- Maximize community integration
- Support adolescent and families in transition planning

Occupational Therapy

- Promote autonomy in grooming, dressing, cooking (personal maintenance)
- Evaluate school environment re obstacles
  - aids/adaptations
- Explore leisure opportunities, adapted skiing
  - defi sportif, viomax
- Employment/academic opportunities
- Driving
- Address barriers to social and other community programs

Speech-Language Pathology

- AAC technologies
  - Spelling, grammar
    ANTIDOTE
  - Reading and writing
    WORD Q
  - Organize presentations
    INSPIRATION
  - Writing - Laptop, iPad
- Social cues training



Physical Therapy

- Health promotion efforts
  - Fitness training, active recreation, maintain mobility
- Interventions for pain
  - Prevention: Protect joints, stretch, strengthen
- Monitor equipment needs for mobility

School of Physical and Occupational Therapy

EXCELLENCE THROUGH GROWTH

SCSD

50th 1963-2013

BECOMING A REHABILITATION PROFESSIONAL ….. AT MCGILL UNIVERSITY


mix 96


World Physical Therapy Day


WINNER OF PTOT GAMES 2013!!!
damn you're sexy...

Educational requirements

- Master's degree requirements for licensure (all three professions)
  - High academic standing, demonstration of interest in the profession, Multiple Mini Interviews (OT/PT)
- SPOT unique dual entry
  - after CEGEP: BSc programs, continue to MSc
  - after degree: QY (with U3), continue to MSc
- Very competitive
  - between 6-12 applicants per spot (10:1)

Programs in Quebec

University	Physical Therapy	Occupational Therapy	Speech-Language Pathology
McGill	√	√	√
U de Montréal	√	√	√
Sherbrooke	√	√	
Laval	√	√	√
UQTR		√	√
UQAC	√ (McGill program)		

Programs in Quebec

University	Physical Therapy	Occupational Therapy	Speech-Language Pathology
McGill	**√**	**√**	**√**
U de Montréal	√	√	√
Sherbrooke	√	√	
Laval	√	√	√
UQTR		√	√
UQAC	√ (McGill program)		

STRONG HISTORY AS LEADERS

Historical context at McGill University

- School of Communications Sciences & Disorders
  - 1963; 50th anniversary, 2nd in Canada
- School of Physical & Occupational Therapy
  - 1943; **First** PT program within Faculty of Medicine
  - 1950; **First** OT program (diploma)
  - 1954; Canada's **first** BSc programs P&OT
    - BSc PT 1969; BSc OT 1971
- **First PhDs** in Canada
  - Comm Sci and Rehab Sci (1988)

INNOVATION IN REHABILITATION

…EXCELLENCE IN RESEARCH

Examples of research at our Schools related to the case vignette

EARLY IDENTIFICATION

- General Mov'ts to predict CP and motor disability in preterms (Snider)
- Early identification of CP using KT tools by primary care MDs (Majnemer)

INTERVENTIONS

- Constraint approaches and virtual reality in CP (Levin)
- Current practices in Canada re use of constraint (Shikako-Thomas)
- Intervention to promote leisure in youth with physical disabilities (Anaby)
- Determinants of physical activity and leisure in adolescents born premature (Majnemer)

LANGUAGE

- Speech-sound disorders in children (Rvachew)
- Syntax, discourse in children (Gunnerman)
- Bilingualism and specific language impairment (Thordardottir)

KNOWLEDGE TRANSLATION

- Benefits of CPEngine (Snider) Childhood Disability LINK (Majnemer, Shikako-Thomas)
- Policy development to promote participation (Shikako-Thomas)

Job market

- High job demand
  - Recent addition of 2 OT and 2 PT programs
  - Expansion of class sizes
  - Every graduate gets a job immediately
- Salary range:
  - $35,000 - $80,000
  - higher in private practice

MAKING A DIFFERENCE IN PEOPLE'S LIVES

BEYOND THERAPY

PHYSICAL, OCCUPATIONAL & SPEECH THERAPY

Making a difference: Some key trends

- An aging population
- Higher survival rates from accidents; medical and surgical advances
- Increased emphasis on health promotion and prevention to decrease health costs
- Higher incidence of mental health problems
- Increased societal awareness of needs of persons with disabilities
- Greater job stress, longer retirement periods
- A more informed public regarding health needs


School of Physical and Occupational Therapy
McGill
École de physiothérapie et d'ergothérapie
McGill


School of Physical and Occupational Therapy
McGill
École de physiothérapie et d'ergothérapie
McGill

ACKNOWLEDGEMENTS

- SLP
  - Dr. Marc Pell, Director and Associate Dean SCSD
  - Sophie Vaillancourt, CCE SCSD
  - Dr. Caroline Erdos, SLP MCH-MUHC
- OT
  - Dr. Bernadette Nedelec, Director, OT SPOT
  - Dr. Keiko Shikako-Thomas, postdoc
- PT
  - Dr. Judith Soicher, Director, PT SPOT
  - Dr. Isabelle Gagnon, Assistant Professor SPOT

mini health sciences de la santé

http://www.mcgill.ca/spot/programs/occupational-therapy-program