

NEUROPSYCHOLOGY TRACK

COORDINATOR: Dr. Andrea Lazosky

NMS Code Number 181516

3 Resident Positions are available

The Neuropsychology Track adheres to the training guidelines outlined at the Houston Conference on Specialty Education and Training in Neuropsychology (*APA Division of Clinical Neuropsychology, Newsletter 40, Winter/Spring 1998*). The primary goal is to prepare residents for post-doctoral supervised practice in providing neuropsychological assessment and consultation. In order to achieve this goal, the neuropsychology residents are provided with:

- 1) Experience to advance their theoretical knowledge in neuropsychology and general clinical psychology; and,
- 2) Training in assessment, diagnosis, and consultation with respect to neuropsychological and psychological disorders.

The general structure of the neuropsychology track includes the following experiences:

- 1) A seminar series required of residents in all tracks;
- 2) Several Neuropsychology/Medical Rounds;
- 3) 87% of clinical training within the Neuropsychology area, and;
- 4) 13% of clinical training in Minor Rotations outside of neuropsychology, preferably an intervention rotation.

A strength of the programme includes the option of working with several different neuropsychologists who offer a variety of perspectives due to their different training backgrounds. The resident is exposed to fixed and flexible batteries of tests, as well as specialized assessment techniques/test batteries to address specific questions or populations (e.g., capacity assessments, localization of function). Residents who choose to work with the Adult Epilepsy service at University Hospital may also be exposed to specialized assessment procedures such as Sodium Amytal testing or cortical stimulation.

Residents may have the opportunity to work with patients across the entire age spectrum, ranging from very young children to the elderly, who present with a wide variety of neurological, medical, and psychiatric disorders that have an impact on their cognitive skills. London Health Sciences Centre is a tertiary care teaching hospital and has a strong Clinical Neurological Sciences department. In addition, Parkwood Hospital, part of St. Joseph's Health Care, London, offers specific neurorehabilitation services for patients with acquired brain injuries. Consequently, Neuropsychology residents are exposed to a wide variety of inpatient and outpatient populations, including those with very rare disorders. Opportunities also exist for working with patients from different cultural backgrounds or those with specific disabilities. Also, Parkwood Hospital's Specialized Geriatric program is part of a region-wide geriatric service, which offers a variety of consultative, assessment, and rehabilitative services. Neuropsychology is developing geropsychological approaches, in particular in the cognitive assessment of the elderly.

In general, all of the Neuropsychology Major Rotations share a common set of experiences. The primary focus across all rotations is to address the referral question using neuropsychological assessment techniques. More specifically, residents will acquire skills in reviewing medical charts and neurodiagnostic test results, interviewing, test administration, scoring, interpretation, report writing and oral communication of results and recommendations to referring physicians, health professionals, patients, families, and on specific rotations, to schools and insurance companies.

Assessments typically include evaluation of mood and personality. Residents have the opportunity to work with psychometrists on a limited number of cases.

In addition, a Neuropsychology Major Rotation at the Children's Hospital is available to residents. Because of limited resources, we are not able to guarantee that paediatric experiences will be available for residents without the requisite clinical experience and training.

Seminars, Rounds, and Other Training Experiences

Residents will participate in Neuropsychology Rounds and "Journal Club" approximately twice a month on Wednesday mornings. These meetings encourage and provide the opportunity for discussion of the relevant neuropsychological literature pertaining to assessment issues and particular disorders within the context of case presentations or specific journal articles. Each resident can expect to present at least twice at the LHSC Neuropsychology Rounds during the course of the year. Attendance at these rounds is required of all Neuropsychology residents.

There are innumerable opportunities for attendance at various Teaching Rounds/Team Meetings and Neuropsychology residents are expected to develop expertise in working with other health care professionals as independent consultants. Medical teaching rounds are conducted on an ongoing basis by relevant departments. Attendance at some teaching rounds/team meetings is required for virtually all of the Neuropsychology Rotations and varies depending on the specific rotation (e.g., Epilepsy Teaching Rounds are required of residents in the Adult Epilepsy: Neuropsychology Emphasis Major Rotation).

Examples of the numerous teaching rounds occurring on a regular basis include CNS Grand Rounds, SJHC Physical Medicine and Rehabilitation Grand Rounds, Lawson Health Research Institute's Aging, Rehabilitation, and Geriatric Care Learning Luncheons (at Parkwood), Movement Disorders Rounds, Neurology Professors Rounds, Neuroradiology Rounds, Paediatric Neurology Case Rounds, Paediatric Acquired Brain Injury Rounds, Epilepsy Teaching Rounds, and Team Meetings.

Special Requirements for Applicants for the Neuropsychology Track

Because of the specialized nature of the Neuropsychology Track positions, academic preparation and practicum experience within the area of neuropsychology are necessary. We strongly prefer that resident applicants meet the guidelines outlined by APA Division 40 and INS in 1987 (*Reports of the INS-Division 40 Task Force on Education, Accreditation, and Credentialing, The Clinical Neuropsychologist*, pp. 29-34) and put forth at the Houston Conference on Specialty Education and Training in Clinical Neuropsychology (*APA, Division of Clinical Neuropsychology, Newsletter 40, Winter/Spring 1998*).

To be considered, applicants for positions in the Neuropsychology Track must have the following credentials:

- a formal 600 hour formal neuropsychological practicum (with a minimum of 200 hours spent in face-to-face neuropsychological activities),
- at least ten comprehensive adult neuropsychological assessment reports in English, and,
- completion of a graduate-level course (or other documented formal didactic training) in neuropsychological theory or neuropsychological assessment.

To be considered for the London Health Sciences Centre: Children's Hospital's Major Rotation, applicants also must have the following credentials:

- at least 100 of the 600 formal neuropsychological practicum hours must be in face-to-face contact hours with children;
- at least ten comprehensive neuropsychological assessment reports involving paediatric patients (in addition to the ten adult reports) written in English;
- completion of a graduate-level course (or other documented formal didactic training) in child developmental psychology or paediatric psychology.

Major Rotations Available:

London Health Sciences Centre: Children's Hospital
London Health Sciences Centre: South Street Hospital/Victoria Hospital
London Health Sciences Centre: University Hospital
St. Joseph's Health Care, London: Parkwood Hospital

London Health Sciences Centre: Children's Hospital

The aim of this Major Rotation at the Children's Hospital is to provide training for residents primarily interested in pursuing a career as a Paediatric Clinical Neuropsychologist. Along with the minimum credentials required by all Neuropsychology resident applicants, applicants for this track must also meet the following credentials:

- at least 100 of the 600 formal neuropsychological practicum hours must be in face-to-face contact hours with children;
- the required ten comprehensive neuropsychological assessment reports must involve paediatric patients; and,
- completion of a graduate-level course (or other documented formal didactic training) in child developmental psychology or paediatric psychology.

The Paediatric Acquired Brain Injury/General Consultation service provides neuropsychological assessment and consultation services to paediatric inpatients and outpatients presenting with known or suspected central nervous system dysfunction. The resident will have the opportunity to work with a variety of patient populations including children with acquired brain injury, such as traumatic brain injury, stroke, and encephalitis as well as children with a range of other neurosurgical or neurological disorders. The neuropsychological assessment focuses on the relationship between brain functioning and behaviour and typically includes an evaluation of intellectual function, language, visuoperceptual abilities, motor function, attention, memory, executive function, and academic skills. The resident will be involved in interviewing children and family members, reviewing pertinent medical, educational, and rehabilitation information, and administering neuropsychological tests to the child. The resident will also prepare neuropsychological assessment reports and provide feedback to children and their families. The resident will gain experience in case conceptualization and in providing developmentally appropriate recommendations for rehabilitation and academic programming. Opportunities may be available to provide consultation to an interprofessional hospital team, rehabilitation workers in the community, and school staff.

Neuropsychology on the Paediatric Oncology service provides neuropsychological assessment and consultation to children treated within paediatric oncology (e.g., acute lymphoblastic leukemia, brain tumours). In addition to assessing children undergoing treatment for childhood cancer, long-term follow-up of children who have survived cancer is also a major focus of this service. Using a wide variety of psychometric tests, residents will gain experience assessing a number of cognitive, motor and academic functions, as well as behavioural and socio-emotional domains. Neuropsychological assessments are tailored towards providing developmentally appropriate and concrete recommendations and interventions with an emphasis on the guidance of clinical practice through scientific research. Residents will gain experience in the selection and administration of appropriate neuropsychological assessment tools, conducting interview and feedback sessions, reviewing sources of background information, report writing, and providing consultation to parents, school boards, and the interprofessional oncology team.

The resident may also have some exposure to the neuropsychological component of the Paediatric Acquired Brain Injury Community Outreach Program (PABICOP), a community based outreach team. The PABICOP team is a joint program that was developed in partnership between LHSC and Thames Valley Children's Centre. This interprofessional team is comprised of a pediatric physician specialist, nurse practitioner, social worker/community outreach coordinator, school liaison, occupational therapist, psychometrist, and neuropsychologist. The resident will perform comprehensive neuropsychological assessments and provide feedback to the child and family, in addition to providing consultation to other PABICOP team members, school personnel, and community health care providers.

Supervisors:

Dr. Andrea Downie

Dr. Ellen Vriezen

Dr. Susan Pigott

London Health Sciences Centre: South Street Hospital/Victoria Hospital

The Neuropsychological Diagnostic Assessment Service provides care to primarily inpatients and some outpatients at both South Street Hospital and Victoria Hospital. The primary care provided by this service is neuropsychological consultation and assessment of adults with known or suspected brain dysfunction. Referrals are received from a variety of medical units at both hospitals including critical care, trauma, internal medicine, mental health, cardiology, and oncology. Patient populations served include individuals with traumatic brain injury, cerebrovascular disorders, anoxia, tumours, seizures, metabolic disorders, psychotic disorders, depression, or suspected dementia.

The aim of this Major Rotation is to prepare residents for professional practice in a hospital-based general neuropsychology service. Residents develop the consultation and assessment skills necessary to address the types of referral questions generally posed. Skill development includes tailoring assessments according to the acuity of the patient's medical status, conducting bedside assessments, differential diagnosis, and at times providing a better understanding of the neurological underpinnings of behaviour to enhance patient care. Residents will develop an appreciation of how different medical conditions may affect the integrity of the brain.

Assessments include interviewing patients and their families, reviewing medical information (e.g., neurodiagnostic test results, medical chart), neuropsychological testing, and reporting of results. Assessments are adapted according to the issues to be addressed, age and medical acuity of the patient, and nature of the medical problem. Testing ideally includes evaluation of intellectual and academic skills, executive functions, attention, memory, visual-perceptual and constructional skills, language abilities, motor functions, and emotional status.

Supervisor:

Dr. Andrea Lazosky

London Health Sciences Centre: University Hospital

To ensure breadth of experience, residents who choose this rotation are required to spend time on both available services at this site, namely the Adult Neurology/Neurosurgery service and the Adult Epilepsy service. Within the rotation, the resident may decide on the proportion of time spent on each of the two services, with a minimum of one day/week on each of the services.

Adult Neurology/Neurosurgery Service: Experiences within the Adult Neurology and Neurosurgery service will provide residents with exposure to a wide variety of adult age ranges and a wide variety of syndromes with unique behavioural disturbances. For example, patient populations include cerebrovascular disease (e.g., stroke, aneurysms), cortical and subcortical dementia (e.g., Alzheimer's disease, Parkinson's disease, Huntington's disease, Creutzfeldt-Jakob disease), multiple sclerosis, amyotrophic lateral sclerosis, tumours, encephalitis, and acquired brain injury. The major focus will be on neuropsychological assessment with the goal of diagnosis and/or description and documentation of neuropsychological functioning. More specifically, residents will acquire skills in interviewing, test administration, scoring, interpretation, report writing, and communication of results and recommendations to referring physicians, health professionals, and patients and their families. The vast majority of referrals will be seen on an outpatient basis. Opportunities to work with a psychometrist in the latter part of the rotation are available.

Adult Epilepsy Service: The Adult Epilepsy service provides residents with experience in the neuropsychological assessment of adult and adolescent patients with intractable epilepsy, most of whom are surgical candidates. Patients are seen on an outpatient basis or as inpatients admitted for continuous EEG monitoring on the 8-bed epilepsy inpatient unit. The goals of a pre-surgical neuropsychological assessment typically include the identification of potential areas of cerebral dysfunction, assessment of hemispheric dominance for language, and communication to the team and the patient the results of the neuropsychological assessment including potential cognitive risks of a proposed resection. Post-surgical/follow-up issues are also addressed where relevant. Assessments include reviewing relevant medical information (including findings from neurological, EEG, and neuroimaging investigations), interviewing, neuropsychological testing, integration and interpretation of the findings, report preparation, communication of the results to the treatment team, and the provision of feedback to the patients and families. In addition, the resident will gain experience in specialized test procedures and investigations, such as the sodium Amytal (or Wada) test, and have the opportunity to observe neurosurgical procedures and cortical mapping as available. On this service, the resident will benefit from working on an interprofessional team (including neurology, neurosurgery, EEG, clinical psychology, and nursing) as well as have the opportunity to attend and present at Epilepsy Teaching Rounds. Later in the rotation, opportunities to work with a psychometrist will be provided as available.

Supervisors:

Dr. Gloria Grace
Dr. Michael Harnadek
Dr. Brent Hayman-Abello
Dr. Sue Hayman-Abello

St. Joseph's Health Care, London: Parkwood Hospital

The Psychology Staff at St. Joseph's Health Care, London's Parkwood Hospital provide neuropsychological assessment, consultation, and rehabilitation services through a variety of interprofessional teams. These teams work with inpatient and outpatient rehabilitative patient populations. Neuropsychology Residents working on this rotation would be able to work as part of these interprofessional teams for their six-month placement.

Neuropsychology is an important part of the Acquired Brain Injury Rehabilitation Program. Referred patients present with a variety of medical conditions including multiple trauma, stroke, neuromuscular disease, and traumatic brain injury. Residents on this service will undertake neuropsychological assessment with the goals of diagnosis and/or description and documentation of neuropsychological functioning, and may engage actively in rehabilitation service planning, consultation, and implementation. Residents may also obtain experience in a variety of clinical interventions including cognitive affective rehabilitation. Individual and marital family, as well as cognitive behavioural and interpersonal therapy, is available.

Neuropsychology in Specialized Geriatric Services focuses mostly on outpatient services to a wide range of individuals aged 55 years and older. This includes those with mild cognitive impairment as well as frail elderly with complex medical, psychiatric, and cognitive comorbidities. Opportunities for experience with cognitive remediation are available in the Memory Intervention Program for mild cognitive impairment developed through collaboration with neuropsychology at Baycrest Geriatric Health Care System in Toronto. Consultation opportunities are also available through the Southwestern Ontario Geriatric Assessment Network. This network is an interprofessional outreach team that provides comprehensive geriatric assessments in individuals' own homes, nursing homes, and long-term care facilities in nine counties throughout the Southwest. Opportunities for research and program evaluation may also be available.

Supervisors:

Dr. Jennifer Fogarty
Dr. Margaret Weiser