

Holistic ("Core") Neuropsychological Approach to Rehabilitation

developed by
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<https://nyulangone.org/locations/rusk-rehabilitation>

Overall Approach

- Create a THERAPEUTIC MILIEU consisting of (1) patients (called "TRAINEES") who form a PEER GROUP and (2) the treatment TEAM
- This milieu attempts to address (1) **cognitive** development, (2) **social/interpersonal** development, and (3) **self-understanding** of the patient ("trainee") in an integrated and structured fashion.
- Program = 12 or 13 trainee patients who meet (a) for 20 weeks at (b) 5 hours per day over (c) 4 days each week plus some additional meetings.

Weekly Schedule for the Program

Monday	Tuesday	Wednesday	Thursday	Friday
9-10 am Team (Staff) Meeting				Team Meeting 9:00-5:00
10-10:30	Orientation Period			
10:30-11:30	Individual Group Exercises			
11:30-12:00	Peer Lunch			
12:00-2:30	Individualized Cognitive Training			
2:30-3:00	Daily Wrap-Up			
3:00-5:00	Team Planning Meeting			

- SIGNIFICANT OTHER meets in a GROUP every other week for 1 1/2 hours.
- Trainee meets in PERSONAL COUNSELING in addition to the meetings above
- Trainees attend other POSTER or CRISIS INTERVENTION sessions with their "significant other"
- MIDTERM PARTY occurs after 10 weeks when trainees present/explain the program to their significant other and other family members as a group (with ca. 200-300 people attending in total) and give PERSONAL STATEMENTS about their public ownership of their need for rehabilitation.
- FINAL PARTY occurs at end of program as a valedictory for trainees who state whether they accept the recommendation for them and move into a new phase of either occupational trials, back to school, etc.

**"Landmarks" in rehabilitation as the process moves toward a
"reconstituted sense of self"**

- (1) Trainee initiates and controls some behavior (gets engaged in work; not passive or *adynamic*);
- (2) Trainee demonstrates attention and concentration;
- (3) Trainee processes verbal and spatial information;
- (4) Trainee explores type of learning possible, what is needed, etc.;
- (5) Trainee exercises logical reasoning in its convergent, divergent, and executive control styles;
- (6) Trainee has learned to accept self and compensates for loss of old self/abilities.

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Key Realities in Brain Injured Patients

- Awareness of injury is often low.
- Sense of self has been disturbed.

Six Stages of Rehabilitation of Brain-Injured Patient

1. **Engage the patient (trainee) in the process of learning**

- Rehabilitation = Learning
- Need to optimize attention and concentration
- Psychologist's role in giving trainee a sense of taking charge --> trainee is an active partner in process

2. **Make the trainee aware of injuries without breaking his/her spirit**

3. **Compensation** Evaluate potential for trainee to learn new skills

- Can the trainee learn? Can the trainee retain learning? Can trainee apply learning appropriately? Can trainee improvise and adapt?

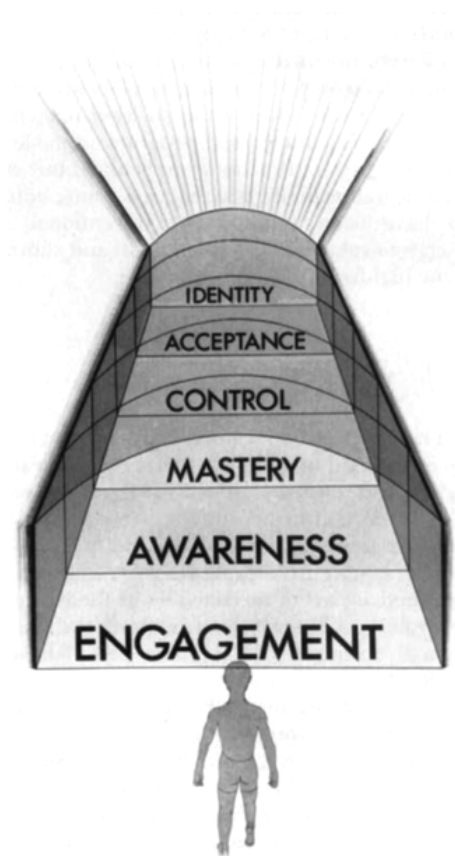
4. **Lead trainee to accept aspects of brain injury that cannot be completely reversed**

- Showing trainee shortcuts around problems

5. **Exploring what kinds of work situations trainee can fit into**

- Occupational trial phase: Practical training

6. **Placement in Real World Setting for Trainee**



Hierarchy of Stages of Rehabilitation

SOURCE: Ben-Yishay, Rattock et al. (1985)

Rehabilitation Team Members

Physical Rehabilitation Medicine (Physiatry)

- <https://www.aapmr.org/about-physiatry/about-physical-medicine-rehabilitation/what-is-physiatry>
- Physical Medicine and Rehabilitation (PM&R) physicians, also known as physiatrists, treat a wide variety of medical conditions affecting the brain, spinal cord, nerves, bones, joints, ligaments, muscles, and tendons. PM&R physicians are medical doctors who have completed training in the specialty of Physical Medicine and Rehabilitation (PM&R), and may be subspecialty certified in Brain Injury Medicine, Hospice and Palliative Medicine, Neuromuscular Medicine, Pain Medicine, Pediatric Rehabilitation Medicine, Spinal Cord Injury Medicine, and/or Sports Medicine.

Neurology

- <https://my.clevelandclinic.org/health/articles/22277-neurologist>
- A neurologist is a medical doctor who diagnoses, treats and manages disorders of the brain and nervous system (brain, spinal cord and nerves). A neurologist knows the anatomy, function and conditions that affect your nerves and nervous system.

Physical Therapy (PT)

- <https://nyulangone.org/locations/rusk-rehabilitation/adult-rehabilitation-services/physical-therapy-for-adults>
- Physical therapists (PTs) provide treatment for a wide range of conditions using strengthening and stretching exercises, manual manipulation of tissue, neuromuscular re-education, and the use of various therapeutic and assistive devices. PTs play an essential role in virtually every condition that rehabilitation medicine addresses. The goal of physical therapy is to improve mobility, restore functional movement, increase independence, relieve pain, and minimize limitations because of permanent disabilities.

Occupational Therapy (OT)

- <https://nyulangone.org/locations/rusk-rehabilitation/adult-rehabilitation-services/occupational-therapy-for-adults>
- "Life-altering conditions such as a stroke, spinal cord injury, or the loss of a limb can have a significant impact on a person's ability to perform simple daily tasks. Occupational therapists (OTs) create a treatment program that helps you regain your independence. OTs help you perform daily tasks—such

as dressing and bathing—successfully manage your home, prepare to return to work, and participate fully in leisure and community activities. ”

Neuropsychological Assessment

- https://www.upstate.edu/pmr/healthcare/programs/neuro_psych/index.php
- Neuropsychologists employ a wide range of tests and neurobehavioral approaches to address specific referral questions or problems. The program at Upstate Medical center uses published, brief, and repeatable tests to provide cost-effective care. Our program is capable of assessing a diverse sample of patients beginning at age five, with no upper age limit. We provide neuropsychological evaluations to patients with the following diagnoses:
 - Traumatic brain injury (mild, moderate, and severe)
 - Cerebrovascular disease (e.g., stroke, aneurysm rupture)
 - Dementia (e.g., Alzheimer's disease, frontal-temporal dementia, dementia with diffuse Lewy bodies)
 - Demyelinating disease (e.g., multiple sclerosis), brain tumors, movement disorders (e.g., Parkinson's disease)
 - Certain developmental disorders (e.g., cerebral palsy)
 - Infectious diseases (e.g., HIV, meningitis)
 - Toxic encephalopathies
 - Hydrocephalus
 - Brain tumors

Rehabilitation Psychology/Psychiatry

- <https://nyulangone.org/locations/rusk-rehabilitation/adult-rehabilitation-services/psychology-services-for-adults-during-rehabilitation>
- Rehabilitation Psychology is a specialty area within psychology that focuses on the study and application of psychological knowledge and skills on behalf of individuals with disabilities and chronic health conditions in order to maximize health and welfare, independence and choice, functional abilities, and social role participation, across the lifespan...Rehabilitation psychologists' work includes assessment and intervention regarding the range of physical, personal, psychosocial, cognitive, and behavioral factors that may be affected, such as neurocognitive status, sensory difficulties, mood/emotions, desired level of independence and interdependence, mobility/freedom of movement, self-esteem and self-determination, behavioral control and coping skills, subjective view of capabilities, and quality of life. In addition, rehabilitation psychologists consider the influences of culture, ethnicity, language, gender, age, developmental level, sexual orientation, social network, residence and geographic location, socioeconomic status, and relative visibility and/or assumption of disability on attitudes and available services. <<https://www.div22.org/what-is-rehab-psych>>

Speech-Language Pathology & Swallowing Therapy

- <https://nyulangone.org/locations/rusk-rehabilitation/adult-rehabilitation-services/speech-language-pathology-swallowing-therapy-for-adults>
- Speech-language pathology and swallowing therapists evaluate and treat adults for communication disorders, swallowing disorders, cochlear implant rehabilitation, and voice disorders, as well as treat children with pediatric feeding and swallowing disorders. Other services include intensive aphasia therapy (3-4 hours/day, 4 days/week for three weeks), cochlear implant speech-language pathology services (working to allow people with severely impaired hearing to hear sounds in their environment), voice therapy, and other services

Nursing

- <https://rehabnurse.org/about/roles-of-the-rehab-nurse>
- The rehabilitation nurse is a nurse who specializes in helping people with disabilities and chronic illness attain optimal function, health, and adapt to an altered lifestyle. Rehabilitation nurses assist patients in their move toward independence by setting realistic goals and treatment plans. They work as part of a multidisciplinary team and often coordinate patient care and team activities. Rehabilitation nurses provide care that helps to restore and maintain function, and prevent complications. They also provide patient and family education, counseling, and case management. Rehabilitation nurses serve as patient and family advocates and can also participate in research that helps improve the practice of rehabilitation.

Vocational Rehabilitation

- <https://nyulangone.org/locations/rusk-rehabilitation/adult-rehabilitation-services/vocational-rehabilitation>
- Vocational rehabilitation efforts help people with disabilities find employment in the competitive marketplace. Clients explore vocational options and develop the skills they need to return to school or work. Various programs in VocRehab include diagnostic evaluations (aptitudes, interests, academic achievements, skill, strengths, work tolerance, etc.), work readiness and job skills training, computer skills training, and job placement services.

Social Work

- <https://nyulangone.org/locations/rusk-rehabilitation/adult-rehabilitation-services/social-work-rehabilitation-services-for-adults>
- Social workers address any concerns related to the emotional and physical impact of an illness or disability. Through a combination of individual, family,

and group treatment sessions, the social worker provides support and assists patients and their families in adjusting to a patient's new needs and challenges. Licensed clinical social workers also serve as a link between the hospital and the community, coordinating at-home care for patients, and encouraging patients and their families to actively participate in formulating a discharge plan that meets the patient's immediate needs. A social worker can help to identify any financial concerns of patients and families and work with insurance carriers and community resources to ensure the smooth delivery of healthcare services. This assistance includes exploring and assisting in applying for financial entitlements, helping in long-term care planning, and making recommendations and referrals to available community resources such as home care, support groups, and transportation assistance.