Rehabilitation Psychology: Contributions to Caring for People with Disabilities*1

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Introduction

This lecture briefly presents the importance of psychology in rehabilitation medicine, the definition of the term “rehabilitation psychologist,” and the history of rehabilitation psychology as a specialty in the United States. This is followed by a detailed discussion of psychologists’ contributions to caring for people with disabilities as part of the multidisciplinary rehabilitation team, illustrated by case examples of two common problems in clinical practice, depression and cognitive deficits.

Why is Psychology Important in Rehabilitation Medicine?

Psychosocial adaptation and coping facilitate positive rehabilitation outcomes, such as functional recovery and participation, while psychological distress and disorders reduce the benefit from rehabilitation and contribute to negative outcomes. Psychologists add value to rehabilitation by facilitating rehabilitation goals, recovery of functional abilities and prevention of medical complications.

Psychologists also play an important role in educating and supporting the patient’s family and the rehabilitation team. Family members often experience difficult emotions when a loved one has a new disability and family caregivers are vulnerable to stress, depression and coping difficulties. In order to be effective as the primary support system for the patient, the family also needs education and psychological support.

Psychologists work with multi-disciplinary team members to increase their effectiveness in changing patient behaviors and improving outcomes. They can provide support to team members coping with stressful situations, such as working with a patient who is angry, uncooperative, highly distressed or has very complex care needs.

What is Rehabilitation Psychology?

The American Psychological Association (APA) defines rehabilitation psychology as “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 can work in clinical services, academia, public health, administration and other fields concerned with disability and rehabilitation. But this lecture focuses on clinical practice as part of the rehabilitation team.

A Brief History of Rehabilitation Psychology

The development of rehabilitation psychology in the United States had two parts: 1) psychology became a standard part of the rehabilitation medicine team, and 2) rehabilitation psychology became a recognized specialty area within the broader field of psychology.

Psychologists played a role in the emerging specialty of rehabilitation medicine beginning in the 1940’s, when the multidisciplinary model was first developed. This model used a comprehensive approach with multiple types of therapies, and focused on return to work, recreational activities and social participation, resulting

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in better outcomes than the traditional medical model.

In the 1950’s, the Division of Rehabilitation Psychology was founded within the APA. Rehabilitation psychologists were recognized by their peers as a group with special interests and skills. After decades of working in rehabilitation settings, psychologists today are also working with health care teams in psychiatry, cardiology, primary care and many other medical specialties.

In 1960, Beatrice Wright published her seminal work, Physical Disability – A Psychological Approach (a second edition was published in 1983). This included several critical ideas: 1) the utility of a multi-factorial model, in which adjustment to a disability depends on the interaction of an individual with various aspects of his social and physical environment, 2) the inaccuracy of the term “disabled person” and the fact that people with disabilities actually have many abilities and strengths as well, and 3) the concept that a person’s acceptance of his disability requires a change in his value system. Dr. Wright influenced psychologists to take a more person-centered and holistic view of people with disabilities. She also highlighted the importance of social skills training and the notion of including patients as co-managers in their own rehabilitation. These ideas seemed radical at the time, but are now commonly accepted in the United States.

In the 1970’s, two important developments occurred. First, the National Institute on Disability Rehabilitation and Research (NIDRR) funded Model Systems of care for spinal cord injury. These multidisciplinary care models were designed to offer state of the art treatments and demonstrate, through research, the effectiveness of comprehensive rehabilitation. Psychologists were included in these systems as core team members. Second, the biopsychosocial model, emphasizing the interaction of biological, psychological and social factors in health and illness was proposed by George Engel in the journal Science. This model, which was adopted in many areas of medicine, reinforced Beatrice Wright’s idea that acceptance, adjustment and function are dependent on the interaction of person and environment, which had already gained broad acceptance in rehabilitation.

Several important developments occurred in the 1980’s. At a time when little was known about brain plasticity, Leonard Diller and other psychologists demonstrated that neuropsychological rehabilitation techniques could enhance cognitive function after brain injury. Wilbur Fordyce developed a behavioral model of rehabilitation for chronic pain, incorporating principles of behavioral psychology, such as reinforcement and extinction to increase function and participation in social roles. Finally, the Model Systems were expanded to include programs for traumatic brain injury and burn rehabilitation; once again, psychologists were included in the multidisciplinary teams.

Rehabilitation psychology is firmly established as a specialty area in the United States. The APA Division of Rehabilitation Psychology now has several sub-sections, including Pediatric Rehabilitation and Women’s Issues in Rehabilitation, and publishes a peer reviewed journal, Rehabilitation Psychology.

The American Board of Rehabilitation Psychology (ABRP) began in 1995 to certify psychologists as specialists in rehabilitation, through rigorous evaluation of their academic and clinical work and an oral examination. Certification by the ABRP is not required to practice rehabilitation psychology, but is a formal recognition of competence and an honor.

In 2012, the APA published “Guidelines for Assessment of and Intervention with Persons with Disabilities” to educate all psychologists on best practices for work with patients who have disabilities. These include several guiding principles for clinical practice of rehabilitation psychology. Practice is person-centered; services are based on the preferences, needs and resources of the person being served. It is based on the biopsychosocial model, recognizing the multiple factors contributing to disability. The interdisciplinary team, including the client, is a key component. Psychologists recognize that people are resilient and have the potential for positive growth. They strive to go beyond the treatment of disorders and to enhance abilities and quality of life by promoting wellness, goal setting and participation in areas of life that are meaningful to the patient.

**Psychological Services within the Multi-disciplinary Rehabilitation Team**

Now we will turn our attention to the clinical services psychologists provide for patients in the context of the rehabilitation medicine team. Each of these services is described in more detail below.

**Evaluation**: The goals of evaluation are to learn about the patient’s psychosocial history, answer diagnostic questions (is he depressed? Does he have impaired memory?), and guide the psychologist in planning appropriate therapeutic, support and educational interventions. Psychologists use multiple sources of data to evaluate a patient, including review of the medical record, a clinical interview, reports from team and family, psychological tests, and direct observation of the patient’s behavior in his therapy sessions or while
interacting with family members. Major areas for evaluation include: Mood, emotions, and coping skills; cognitive abilities and deficits; social and family relationships; personal goals and quality of life. The clinical evaluation may also include information about personality style; pain; substance abuse; level of knowledge about disability and self-care; and academic or vocational skills.

**Treatment**: Treatment is necessary when the patient has a clinical disorder such as depression, post-traumatic stress, or cognitive deficits. Treatment can include psychotherapy for mental health disorders; cognitive rehabilitation techniques to improve or compensate for cognitive deficits; coping and problem-solving strategies; family and couples therapy; sexual counseling; and/or cognitive-behavioral techniques to change health habits (increase exercise, lose weight, stop smoking).

**Education**: Patients and families can benefit from education about the disability and related medical conditions, even if their psychosocial function is good. Important areas of education for adults with a new disability and their spouses or families include: understanding psychosocial aspects of disability; the role of social support in recovery; intimacy and sexuality; self-care; and family caregiving. Education in social skills helps patients and families communicate and interact with other individuals, social systems and health care providers. Assertiveness training teaches people more effective communication using clear and direct expression of their needs without anger or hostility. This is important for people who must ask for accommodations at work or elimination of environmental barriers in their community. Advocacy, an extension of assertiveness, may involve efforts to acquire services, medical equipment, financial benefits, access to education, and so forth; supporting laws that benefit people with disabilities; or changing social attitudes about disability through public awareness and educational programs.

**Enhancing quality of life**: Some of the areas where psychologists can assist patients in enhancing quality of life include helping them set goals and explore interests; reassess their values and create meaning; explore avenues for self-expression and personal growth; and strengthen relationships and social supports. Psychologists can help empower people by connecting them with resources for education, vocational services, recreation, arts and leisure activities, sports, and social groups.

**Multi-disciplinary team interventions and consultation**: Psychologists can help design multidisciplinary interventions to maximize the benefits of rehabilitation and improve the patient’s motivation or ability to reconnect with family and work relationships. For example, psychologists can co-treat with the psychiatrist to coordinate psychotherapy and psychotropic medications; with the physical or occupational therapist, to help patients whose fear or pain is preventing progress; or with the social worker to plan for supporting the needs of the whole family. Psychologists can teach the team consistent approaches to change patient behaviors, and they can assist the team in managing their own emotional reactions to patients. They can consult with vocational rehabilitation services or a patient’s employer about making changes in his job duties or conditions to accommodate his disability after discharge from the hospital and with teachers or college administrators about inclusion of students with disabilities in the classroom.

**Common Clinical Problems**

Now that I have described the breadth of psychological services in rehabilitation, I will focus on two common problems in clinical practice: depression and cognitive deficits. Case examples illustrate the process of psychological evaluation and interventions with the patient, family and rehabilitation team.

**Depression** is very common after the onset of spinal cord injury, stroke, and other disabling illnesses. Clinical depression limits benefit from rehabilitation, can lead to medical complications or suicide, disrupts family relationships and makes caregiving more stressful. Rehabilitation staff members often confuse a patient’s sadness or grief with clinical depression. Sadness is a normal emotional reaction to loss, whereas depression is a disorder with serious health consequences. Psychological evaluation can help determine whether or not a patient has a clinically significant depression.

Depression is responsive to treatment with psychotherapy and medications. For many patients, a combination of medication and psychotherapy is the most effective. Early diagnosis and treatment of depression can improve rehabilitation outcomes such as cognitive abilities, functional independence and participation in family and social roles.

**Case Example**

Jim, a 32-year-old, recently married man, was admitted to the rehabilitation hospital following 4 weeks of acute hospitalization for a spinal cord injury with incomplete paraplegia. Jim frequently asked to stop his PT ses-
Jim had not finished his meals and nurses often saw him crying. He confided to an OT that he felt his life was over and there was no point in trying to learn how to take care of himself. The psychologist was asked to determine whether Jim was depressed, and to provide treatment and suggestions for motivating Jim to stick with his therapy sessions.

Evaluation and diagnosis: The psychologist’s clinical interview revealed that Jim had a high school education and had worked in construction. He had enjoyed playing basketball on a community team. His wife worked part time as a bank teller. They had a close relationship and enjoyed a satisfying sex life. They planned to have children in the next few years. Since his injury 5 weeks ago, Jim had been feeling sad, worthless and hopeless about the future. He did not enjoy anything. His appetite was poor and he was not sleeping well. He referred to himself as a “useless cripple,” and feared that his wife would divorce him because he was “no longer a man.” Jim had thought often about suicide, and imagined how he might kill himself while in the hospital. To help confirm his diagnosis, Jim was given the Beck Depression Inventory, a paper-and-pencil test for depression. His score indicated serious depression, consistent with his clinical interview. Jim was diagnosed with a major depressive episode. He was educated about depression, available treatments, and expected outcomes. The psychologist gave Jim selected subtests of the Wechsler Adult Intelligence Test (WAIS), to get a rough assessment of his intellectual abilities. This was important for exploring Jim’s vocational options, since returning to construction work would not be possible due to his paraplegia. Jim scored in the above-average range, suggesting the potential to train for a new career.

Treatment and family intervention: Treatment by the psychologist included cognitive-behavioral therapy (CBT) and couples therapy. CBT focused on challenging Jim’s negative thoughts and attitudes about his disability; teaching him to identify and focus on his positive attributes as a person; and educating him about wheelchair sports, vocational retraining, and other avenues for reengaging in his life. Couples counseling and education with Jim and his wife focused on sexuality, fertility and parenting options. The psychologist also met alone with Jim’s wife to educate her about spinal cord injury and depression. She counseled the wife about potential problems for spouse caregivers, such as increased risk for depression and stress, and discussed strategies his wife could use to take better care of herself. She referred the wife to a spouse-caregiver support group in her community.

Multi-disciplinary team intervention and consultations: The psychologist requested a peer counselor visit for Jim. She consulted with the hospital psychiatrist to evaluate Jim for psychotropic medication; Jim was started on an antidepressant. She helped the physical therapist (PT) understand that Jim’s depression was the cause of his lack of motivation; that Jim needed to have some control over his schedule; that frequent praise for Jim’s efforts would reinforce his participation; and that making PT relevant to Jim’s individual goals would be an important motivator.

Patient-centered plan: The PT, psychologist and Jim made a plan for giving him more control and engaging him in his recovery. The PT agreed to shorten the length of his sessions and Jim agreed to add 10 minutes each day until he was completing a full-length session. The PT discussed Jim’s interests and goals with him. She gave Jim exercises that would help him participate in wheelchair sports. The PT reinforced Jim’s efforts with frequent verbal praise and made a chart of his progress, which gave him regular visual feedback.

Outcome: Jim’s depression gradually improved over the next 4 weeks; he began to re-evaluate his circumstances and set new goals. The peer counseling experience helped him see the possibilities for living a good life with a spinal cord injury. With the psychologist’s help, Jim began considering career alternatives; he thought about going to college for a business degree and made an appointment with a vocational counselor. Jim’s wife reassured him that, although she was concerned about the many changes they faced, she loved him and was committed to their marriage. Jim made good progress in his rehabilitation therapies. He was referred to outpatient psychotherapy after discharge from rehabilitation.

Cognitive deficits are common consequences of many neurological disorders. Deficits can occur in many areas of cognition: memory, learning, language, reasoning, attention, visual perception, insight, planning and self-awareness. Cognitive deficits are the cause of much functional disability, and are often more distressing for family members and caregivers than physical disabilities. When cognitive changes are significant, the individual’s personality seems to be different and role changes in the family are more likely to be necessary. Education about management of cognitive deficits is essential for improving patients’ function and reducing caregiver stress.
Case Example

Lilly, a 70-year-old widowed woman was admitted to the rehabilitation hospital after 10 days of inpatient care on a neurology unit for an acute stroke. She had left hemiplegia, mild dysarthria and inappropriate outbursts of crying and laughing. Her family was very upset by this. Her nurses noted that Lilly did not seem to understand her own difficulty walking or her need for help, and they were worried that she would fall. They wondered if her memory was impaired.

Evaluation and diagnosis: The psychologist’s clinical interview revealed that Lilly had completed 2 years of college education, and was a retired secretary. She had been married for 35 years until her husband died 5 years ago. She had 2 grown children and 2 young grandchildren. She did not drink alcohol or smoke. In her free time, she enjoyed baking cakes, making crafts and reading. Lilly seemed unconcerned about her disability. She was not sure why she needed to be in the hospital and said she was ready to go home. She reported feeling “great” most of the time. She cried easily when talking about seeing her grandchildren, or other emotional topics. When the psychologist changed the subject of conversation, Lilly’s crying stopped. The psychologist gave Lilly several psychological tests to further assess her mood and cognitive function. On the Geriatric Depression Scale, a paper and pencil test of depressive symptoms in the elderly, Lilly scored in the normal range. Lilly performed in the moderately impaired range on the Wechsler Memory Scale, a brief test of verbal and visual memory. The Mini-mental State Exam, a brief screening test for cognitive function revealed impairments in memory, attention and visual-spatial skills.

Lilly was diagnosed with two conditions: cognitive deficits (impairments in attention, memory and insight into her condition) and emotional lability. She could not always attend to or process what she was told, and since her memory was impaired, Lilly sometimes forgot the nurses’ repeated instructions to ask for help when getting out of bed. Lilly was not consistently aware of her hemiplegia or need for assistance.

Emotional lability is an impairment of emotional control, not a symptom of depression. Lilly’s outbursts of crying and laughter were triggered by any emotionally arousing stimulation (for example, talking about her daughter’s birthday; seeing a romantic scene on TV). When her crying was ignored or interrupted by a change of subject, it usually stopped; when her family paid attention to the crying by getting upset about it, it got worse.

Family interventions: Lilly’s family was educated and counseled to improve communication with Lilly and better manage her memory impairment and emotional lability. When communicating with Lilly, the family was instructed to eliminate distractions; make eye contact; speak slowly; and repeat important information. They were advised to write important information in a notebook at Lilly’s bedside. To distract Lilly from crying episodes, they were taught to change the subject, ask Lilly to take some deep breaths, or direct her attention to another activity. They were advised not to ask her about her feelings or pay attention to the crying at all, unless she verbally stated that she was sad. The family was advised that Lilly would need supervision and help with making decisions about her future care plans. They were asked to think about designating one of their children to take this role.

Multi-disciplinary team interventions: The psychologist and nurses made a plan to improve Lilly’s safety by putting signs around Lilly’s room reminding her to ask for help; nurses were asked to anticipate Lilly’s needs by offering to get her out of bed at frequent intervals, and to praise Lilly when she spontaneously asked for help. The team was educated about managing Lilly’s emotional lability. Therapists were advised to help Lilly pay attention by treating her in a quiet area with few distractions and to give her consistent feedback to improve her awareness of deficits and safety issues.

Outcome: Lilly’s outbursts of crying became shorter and less disruptive to conversations and therapy. Her family learned to ignore these outbursts, and stopped being upset by them. They were able to explain the situation to friends and visitors, so that others would not make this problem worse. Lilly had fewer incidents of getting up without assistance. Lilly was referred to an outpatient neuro-rehabilitation program to continue working on improving her attention, memory and awareness.

Summary

Rehabilitation Psychology is an established specialty in the United States and most rehabilitation medicine teams include a psychologist. Psychological services facilitate positive rehabilitation outcomes. As part of the rehabilitation team, psychologists target psychosocial function, family adaptation, participation in rehabilitation therapies, and multidisciplinary team work. Psychological evaluations and interventions contribute to better health and function, more effective family support and caregiving, and increased participation in life.