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Psychology and Medical Rehabilitation: Moving Toward a Consumer-Driven Health Care System

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Changes in health care will provide both opportunities and threats for rehabilitation psychologists. We must demonstrate the relevance of our clinical services to important outcomes or risk being excluded as treatment providers. With shifts to nonhospital settings, we can provide increasing clinical and administrative leadership. However, we must redefine models of treatment to include home care and "telepsychology," practice guidelines and critical paths, involvement of paraprofessionals, case management, injury prevention, and health promotion. We should be involved when datasets are established to define disability-related health policies and reimbursement and be proactive in Medicare, Medicaid, and managed care reform to develop treatment packages to decrease long-term handicap. Collaboration with consumers is critical. We must frame research questions to address current policy issues. Our skills can help improve the effectiveness of human behavior, whether it be patients with illness, consumers with disability, health care providers, health systems managers, or legislators.

KEY WORDS: rehabilitation; psychology; future; disability.

INTRODUCTION

Psychologists have worked in medical rehabilitation settings for more than a half-century, long before psychologists were regularly involved in

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other nonpsychiatric health settings. This article identifies the forces which have shaped the current status of rehabilitation psychology and the forces which will shape its future. There are a number of opportunities and some distinct threats which face rehabilitation psychology and which require proactive involvement.

REHABILITATION AND DISABILITY

Rehabilitation seeks to maximize the functional abilities of people who have a disabling impairment due to injury, acute illness, congenital abnormality, or chronic health condition. It includes not only inpatient hospital care and outpatient clinics, but also home health services, day treatment programs for work hardening, pain management, and cognitive rehabilitation, as well as community, school, and work reentry programs. The goal is to enable individuals to live in the least restrictive, least costly environment at their highest possible level of independence (Melvin & Zollar, 1993).

There are significant numbers of Americans with disabilities. Estimates of the U.S. general population with chronic health conditions which cause *any activity limitation* range from 35 to 49 million (14.2%–19.7% of the population) (Pope & Tarlov, 1991; Prevalence of mobility and self-care disability — United States, 1990, 1993), while estimates of those with *major activity limitation* (e.g., school, work) range from 22 to 23.9 million (9.4%–9.6% of the population) (DeJong, Batavia, & Griss, 1989; Adams and Benson, 1992). U.S. total annual costs of disability are estimated at $176 billion, including $63 billion in direct medical costs (Rice & LaPlante, 1992), $68 billion in lost productivity (Chirikos, 1989), and $45 billion in additional household expenses and other costs. Rehabilitation interventions can be important in reducing these costs by reducing injury rates through education, reducing impairment-related activity limitations, and reducing secondary complications.

The need for rehabilitation will continue to grow as medical technology decreases mortality and as the American population ages. However, as functionally related groups (FRGs) become available for prospective payment of rehabilitation services, the financial incentives for rehabilitation services in outpatient rehabilitation facilities and skilled nursing facilities, as well as at home, will increase, and the incentives for inpatient rehabilitation will decrease. In addition to being prospectively reimbursed, rehabilitation will become increasingly delivered through managed care arrangements.

PSYCHOLOGY IN REHABILITATION

Rehabilitation has been interdisciplinary since its beginning, with collaboration among nurses, physicians, restorative therapists, teachers, social workers, assistive technologists, rehabilitation counselors, and psychologists. The traditions of rehabilitation include issues of empowerment, that is, assisting individuals to maximize their own abilities and to make their own choices. Issues of employment, social role and community integration, and environmental access have been emphasized (Gray, 1990).

As psychologists first became involved in rehabilitation, this was often limited to intelligence and personality assessment or to vocational rehabilitation. However, as rehabilitation psychology developed, the importance of psychology's contributions to understanding and treating clinical problems in rehabilitation has been evident. These include experimental and research investigations of complex clinical phenomena related to disability, psychological conceptualization of health-related behaviors, social psychological conceptualization of social responses to individuals with disability, group dynamic analyses of complex psychosocial aspects of health care settings, and a large number of other theory-based interventions and research (Elliott & Gramling, 1990).

There is a fundamental and important way in which rehabilitation psychology is not the same as other branches of medical psychology: a disability is not an illness. Disability-related psychology calls for a significantly different set of assessments and interventions than does illness-related psychology. Rehabilitation psychologists provide important disability-related services to individuals with acute impairments due to injury or acute illness, chronic impairments due to injury or acute illness, and chronic impairments due to chronic illness.

There are fundamental and important ways in which individuals with long-term disability are not patients. "Too much of the health care system views the individual's disability as the primary pathology and fails to understand the distinctive . . . problems to which the disabled person may be vulnerable" (DeJong *et al.*, 1989, p. 321). The independent living movement has struggled against the medical model to move from paternalism to consumerism (Gray, 1990). In the traditional medical model, active professionals treat passive patients. In the independent living model, the disabled person is a consumer, not a patient, and actively recruits, selects, manages, and directs his or her ongoing care and treatment providers (DeJong *et al.*, 1989). In addition, the independent living movement has struggled against stigmas and negative attitudes which exclude individuals with disabilities, and limit access to educational and occupational opportunities, similar to the discriminations of racism and sexism.

There have been a number of legislative decisions which have established a place for psychology in rehabilitation at a level which has not been established in other types of health care. The Rehabilitation Act of 1973, as amended (Public Law No. 93-112), emphasized treatment and goal-oriented outcomes, without physician supervision, and with emphasis on psychological diagnosis, evaluation and treatment. This has helped establish rehabilitation as an area in which psychologists can achieve parity with physicians (Frank *et al.*, 1990). The Education for All Handicapped Act of 1975 (Public Law No. 94-142) included psychologists as core clinicians conducting assessment and treatment (Frank *et al.*, 1990). Both these pieces of legislation emphasize functional outcomes, which is an area in which psychologists have much to contribute (Frank *et al.*, 1990).

CHANGES IN THE HEALTH CARE SYSTEM

Frank (1993) lists a number of factors leading to inevitable change in the American health care system.

- Compared to other developed nations, health care in the United States costs 40% more (Schieber & Poullier, 1991), and yet Americans are less healthy (e.g., life expectancy, infant mortality) (Frank, 1993).
- There are 36 million nonelderly Americans, including 10 million children, who lack health benefits (Employee Benefit Research Institute, 1992), 85% of whom are low-income working families (Employee Benefit Research Institute, 1991), resulting in restricted access and a dual system of care (Frank, 1993).
- The health care market in the United States is not competitive, providers have no incentive to hold down costs, and patients have no incentive to seek out lower costs (Frank, 1993).

Due to these and other factors, change in health care is inevitable. Insurers and employers are increasingly moving to managed care to contain costs. The President and Congress have not been able or willing to make true reform at the national level and, instead, are simply decreasing funding for Federally funded health services (Hagglund & Frank, 1996). Thus, "States . . . have become the experimental laboratories of health care reform in the US" for individuals not otherwise insured (Frank, Sullivan, & DeLeon, 1994, p. 855).

The Federal Government is the primary payer of inpatient rehabilitation, with Medicare paying 70% of the total costs (DeJong & Sutton, 1995). Hospital

rehabilitation has been protected to some extent from many managed care trends because of its reliance on Medicare's cost-based and fee-for-service system (DeJong & Sutton, 1995). However, Medicare is being increasingly considered for privatization. In addition, "unprecedented growth in Medicaid . . . has stretched states' budgets to near breaking points" (Frank *et al.*, 1994, p. 855), and more than 44 states have moved toward privatizing Medicaid with managed care (Cavaliere, 1995). From 1991 to 1994, the number of Medicaid recipients enrolled in managed care arrangements increased from 2.7 to 7.8 million (Horvath & Kaye, 1995).

Rehabilitation is designed to reduce long-term health and social costs by decreasing functional disabilities and handicaps (Hagglund & Frank, 1996). There are data showing that rehabilitation is cost effective (Kewman, 1997), for example, that for each $1 dollar spent in rehabilitation, there is $10 saved in future medical and disability costs (Alex, Brown & Sons, Inc., 1987). However, MCOs have traditionally not emphasized long-term savings or outcomes but, rather, have tried to decrease short-term costs by selective avoidance of risk, that is, excluding people with disabilities and other costly populations, and by excluding services, e.g., durable medical equipment (Hagglund & Frank, 1996). This places individuals with a disability at a disadvantage. Even when such overt cost avoidance strategies are not used, determinations regarding rehabilitation services are sometimes based on benchmarking to other MCOs who have the lowest outlays for rehabilitation services without regard for long-term treatment outcomes.

Rationing of health care services is implicit in managed care. Rationing should occur according to cost/benefit ratios of specific treatments, but these are often not well known. Unfortunately, rationing decisions can be tainted by social stigmas toward disability (Hagglund & Frank, 1996), and disabled individuals can be categorized as poor cost/benefit risks.

As the Federal Government and large health care corporations are involved in the shift toward less expensive forms of treatment, rehabilitation will occur more often in hospital-based outpatient facilities, non-hospital comprehensive outpatient rehabilitation facilities (CORFs), subacute skilled nursing facilities (SNFs), intermediate care facilities, and the home (DeJong & Sutton, 1995; Frank *et al.*, 1990). However, these different treatment settings vary greatly in amount and type of services provided and may have significant variation in long-term outcomes such as independent living and community integration. In addition, services will more often be delivered by paraprofessional staff (Frank *et al.*, 1990), and this may not have the same long-term outcomes as treatment by professional staff.

With the expansion of managed care, federal and corporate databases will be increasingly used to monitor financial factors, guide policies, determine reimbursement, and formulate health policy. The ways in which data are selected, captured, and interpreted is crucial in policy decisions, and yet there is a long history of these types of decisions being made by business professionals, without significant input from consumers or clinical and research professionals.

DeJong believes that the rehabilitation market is moving from a provider-driven to a payer-driven system and will eventually move to a consumer-driven system. In a consumer-driven health care system, the goal will be to maximize health, function, and cost-effectiveness (DeJong & Sutton, 1995). Services will be organized around a standard benefit package (DeJong & Sutton, 1995), and outcomes will be central to the marketing, pricing, and evaluation of rehabilitation services (Hagglund & Frank, 1996).

The major challenges for rehabilitation will be to have its services included in the standard benefit package and to be involved in how outcomes are assessed. As outcomes become increasingly important, rehabilitation's long-standing interest in functional status and outcome measurement will serve well (DeJong & Sutton, 1995).

CHANGES IN REHABILITATION PSYCHOLOGY

Managed care inevitably includes health care rationing, either explicit or implicit. In this context, only psychological services which impact directly on the short-term rehabilitation progress may be funded. This may decrease direct care, without adequate data regarding the effect on long-term outcomes.

As capitated care evolves, treatment programs will self-limit services to those considered essential. Rehabilitation psychologists will be called upon to demonstrate to other rehabilitation care providers the direct relevance of their clinical services to efficiently achieved and desirable outcomes, or risk being excluded as treatment providers.

In addition, rehabilitation psychologists will have to anticipate and adapt to increasing shifts to nonhospital care. This will involve a deemphasis on institutional identity and an emphasis on a broader psychological specialty identity. Rehabilitation psychology will be challenged to expand to include all areas of preventive care, screening and assessment services, short-term acute-care services, rehabilitative services, and long-term care services (VandenBos, 1993).

Practice guidelines and critical paths are receiving more attention, and there is a demand for increasing identification of the indications for specific services, the essential components of such services, and their operationalization. As large health care systems use greater numbers of paraprofessional staff, it is necessary to define the appropriate roles of psychologists and of psychology-related paraprofessionals and to incorporate nonpsychologists into treatment protocols.

With the increasing use of federal and corporate data bases to formulate health policies and determine reimbursement, psychologists will be increasingly influenced by the ways in which such data are conceptualized, captured, and used to define policy issues, structure and manage health care systems, and understand health- and cost-related consumer decisions (Frank *et al.*, 1990). Decisions regarding such data are not simply administrative decisions, but are, at their heart, important clinical decisions.

Psychology is covered under Medicare, but optional under Medicaid, which may lead to geographical inconsistencies in psychology coverage. "Psychological services tend to be viewed as having only limited impact on cost and access . . . [and] are largely ignored in most states' health reform programs" (Frank *et al.*, 1994, p. 859), despite the fact that there are significant data indicating the cost-effectiveness of psychological services. Thus, state activities regarding psychological services are increasingly important (Frank *et al.*, 1994).

REHABILITATION PSYCHOLOGY'S FUTURE

With the evolution of a consumer-driven, capitated health care system, providers will bid a bundle of services considered necessary to achieve particular outcomes most efficiently (DeJong & Sutton, 1995). We must work now to establish clinical outcome data that will demonstrate psychologists' contribution to efficiently achieved outcomes. Convincing clinical outcome data are essential in securing psychology a continuing role in rehabilitation. It is important to construct increasingly sophisticated empirical models of rehabilitation psychology outcomes, similar to medical-outcome studies (e.g., patient outcomes research teams), in order to determine what treatments have the best outcomes and the best outcome-to-cost ratios. Correlational studies and clinical trials involving long-term outcomes such as self-sufficiency and community integration can provide the scientific data to make decisions about appropriate types and levels of rehabilitation psychological care.

As rehabilitation treatment increasingly moves into nonhospital settings, rehabilitation psychologists have the ability to play increasingly central and physician-independent roles. We can serve as program directors providing clinical and administrative leadership, without physician oversight, in a variety of rehabilitation settings; for example, in subacute traumatic brain injury treatment programs (Frank *et al.*, 1990) and in pain-management and work restoration programs. We have the opportunity to develop outpatient rehabilitation programs which are based on psychological theory and research and are not simply replications of previously established medical models.

In addition, we must begin to formulate models of psychological service delivery which include services to home-care patients. This may involve visits by rehabilitation psychologists, as well as visits by psychology-related paraprofessional staff. Research findings must be applied to establish state-of-the-art practice guidelines, critical paths, and other protocols for psychological treatment. Paraprofessionals could then provide more routine or structured services, integrated under psychologists' supervision, and enacted according to these established protocols. Models of home and community rehabilitation psychology interventions can be built on those already established in community mental health for chronic psychiatric illness, which include a variety of professionally supervised paraprofessional staff who provide community- and home-based care. It is essential that rehabilitation psychologists take the lead in the ways in which these standards of care are conceptualized and implemented.

Home care will expand to include "telepsychology," that is, two-way television links between patients and treatment providers. There are 45 telemedicine programs in the United States today which at least potentially offer mental health services, including universities, and federal and state agencies (Telemedicine Information Exchange, 1997). There are only about 10 active programs (Allen & Allen, 1994), including the University of Kansas Medical Center, where the primary author works, which has approximately 70 telepsychiatry "visits" per month, including both individual and group treatment. In addition, we experimented with a grant-supported teleneuropsychology program, in which a neuropsychologist examined the patient remotely and an on-site technician administered standardized tests. There are nine U.S. programs offering potential rehabilitation telemedicine services, the most active of which include the Shepherd Center project to prevent pressure ulcers among persons with spinal cord injury and the Institute for Rehabilitation and Research project to provide education to persons with spinal cord injury. In addition to being able to serve rural and distant areas through audio–video links between offices, technological improvements in home bandwidth capacity could lead to the ability of rehabilitation psychologists to "call up" individuals with disability and videoconference with them at home.

Psychologists can also make important contributions to case management services. Rehabilitation psychologists, serving in noninpatient team leadership positions, have the opportunity to use their knowledge and skills related to group and social processes to coordinate multidisciplinary and multiagency resources that facilitate self-sufficiency and community integration. The coordination of patient, family, and community and social support systems can offer a seamless continuum of resources and increase long-term independence and interdependence.

Although direct clinical issues are important, it is essential that we not become narrowly focused. "Psychology has the potential to become a major health service profession with a vital role in resolving some of society's most vexing problems by significantly decreasing the enormous drain on the nation's financial resources that has resulted from an illness-driven approach to health care and health care financing" (Fox, 1994, p. 205).

Rehabilitation psychologists can make important contributions in injury prevention and health habit promotion, such as water safety programs and wearing of seat belts. Education regarding relative risks of different behaviors and ways in which risks can be minimized is important in preventing disability. In addition, such educational and behavioral interventions can be important in preventing disability-related health complications, such as pressure ulcers or infections. Treatment compliance can be facilitated.

It is essential that rehabilitation psychologists be involved when data sets are established and used to formulate disability-related health policies and determine reimbursement. We should apply our knowledge of disability and program evaluation to ensure that important program structure, process and outcome data are examined, including not only such variables as cost, medical complications, hospitalizations, etc., but also such crucial variables as functional ability, handicap, level of independent living and community integration, vocational and economic self-sufficiency, consumer and family satisfaction, access to assistive technology and personal assistance services, and caregiver burden (Hagglund & Frank, 1996). Rehabilitation psychologists have the opportunity to demonstrate their ability to provide program evaluation services which can identify critical treatment structure and process elements related to successful long-term outcomes.

In addition to issues regarding outcomes of treatment for disability-related issues, issues of initial access to services are also important, since many individuals do not receive the care they need. A health services research capacity in rehabilitation is necessary in order to consider larger societal issues of access to and utilization of rehabilitation and rehabilitation psychology services.

In a rehabilitation psychology primary care model, psychologists treat individuals with disability throughout the life span, with initial intervention at onset of disability and with services delivered as needed in brief, effective interventions (Hagglund & Frank, 1996). Training of rehabilitation psychologists must include a focus on episodic, brief, cost-effective treatment, in a multidisciplinary setting, and include exposure to alternative treatment models, nontraditional roles, and outcome measurement (Hagglund & Frank, 1996).

Rehabilitation psychology should be proactive at micro and macro levels to make a difference in the lives of our clients, ourselves, and our society. There must be proactive involvement in Medicare, Medicaid, and managed care reform to develop integrated treatment packages focusing on decreasing long-term handicap (Hagglund & Frank, 1996). Resource allocation decisions must be carefully evaluated for bias toward those with disabilities. Collaboration with consumers and MCOs in the design and evaluation of health care delivery systems and reimbursement methods, in the identification of appropriate data, and in program analysis and outcomes research is critical (Hagglund & Frank, 1996). Consumers must be involved in defining important types of services and outcomes in order to avoid technically adequate but irrelevant or misguided programs and policies. Two-way television technology can facilitate collaboration among persons with disabilities, treatment providers, and policy makers in creating and monitoring disability-related programs.

We must know what current policy issues are, and what they should be, and frame research questions to address these (Solarz, 1990). As an example, assistive technology and access to personal assistance services are a critical component of independent living, which has a significant ability to control long-term costs. Rehabilitation psychologists should be prepared to provide relevant research data regarding these questions to policy makers. However, it is only at the time when these issues are currently being considered by governmental bodies that relevant information is effective and, therefore, we must monitor legislative and program activity in order to be able to provide this type of information at the appropriate time.

Figure 1 illustrates the involvement of rehabilitation psychologists in different disability-related areas, including the following.

(1) Prevention or treatment of disease or disorder
    (a) Injury prevention
    (b) Adaptive health habit promotion
    (c) Clinical interventions to reduce disorders (e.g., psychophysiological interventions)
    (d) Facilitating treatment compliance

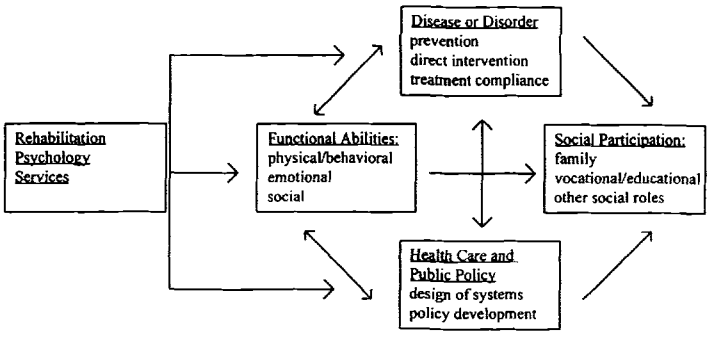

Fig. 1. The relationship of rehabilitation psychology services to disease, functional ability, and health care and social policy, and the interaction of these factors with social participation.

(2) Improving physical/behavioral, emotional and interpersonal functioning
   (a) Individual psychological and behavioral treatment
   (b) Family therapy
   (c) Team consultation to optimize staff—consumer interactions
   (d) Education regarding medical condition and resources
   (e) Case-management to coordinate multidisciplinary or multi-agency interventions or assistance
   (f) Vocational and educational counseling
   (g) neuropsychological rehabilitation

(3) Working in the public or health care policy arena to effect social change
   (a) Grass-roots advocacy with policy makers in conjunction with consumers
   (b) Design and implementation of innovative health care delivery systems
   (c) Initiation of policy development with public officials

These areas interact to promote social participation for individuals with disability, including family, school and work, and recreation and community participation.

As we move into alternative service systems, including nonhospital care, home care and telecommunication, and as we develop roles in system development and evaluation, rehabilitation psychologists must continually redefine ourselves not in terms of where we work or the name of our medical affiliation but, rather, in terms of the problems we address and the

outcomes for which we strive. Our skills are in improving the effectiveness of human behavior, whether it be patients with illness, consumers with disability, health care providers, health systems managers, or legislators. We should ask ourselves what we can imagine, not how we can fit into others' imaginations.

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