

Series 6: Disability v. Impairment

ABSTRACT: *In this Series of articles, you will learn: [1] the critical distinction between impairment and disability; [2] about the tripartite process for assessing damages; [3] the vocational expert's role in assessing occupational disability and the actual cause of that disability; [4] who is responsible for an employee's return to work; and [5] the primary objective of an occupational disability evaluation following trauma.*

The Difference Between Disability and Impairment: A Distinction Worth Making

By Jasen M. Walker ,Ed.D. ,C.R.C. ,C.C.M.

"Impairment" and "disability" are significant terms in the workers' compensation system, and the dissimilarity in meaning between them is critical to an employer's understanding of the system. This article develops the distinction in meaning and how that distinction bears on the system.

Introduction

This article speaks to the clear and important difference between the terms "impairment" and "disability." American employers pay far too much for disability in the workplace because key decision-makers either do not comprehend this difference or do not act on this distinction. This article outlines that significant difference and addresses practical applications for work organizations as employers differentiate between disability and impairment.

The Problem

The problem of disability in America and its cost to our economy is a growing concern for both American business and government. The Americans with Disabilities Act of 1990 and Americans with Disabilities Act with the Amendments Act of 2008 (ADA/ADAAA) are as much economic legislation as it is an extension of equal rights to all citizens of this country. The 101st Congress heard considerable testimony regarding the economic impact of disability on American society. In particular, Title I of the ADA/ADAAA was promulgated as a result of a high rate of unemployment of Americans with disabilities.

Many economic data are cited to support the importance of full employment of Americans with disabilities. For example, by the year 2015, the public will spend over \$1 trillion annually to maintain Social Security Disability Insurance recipients of working age. The full cost of disability in the workplace was studied in 1989 in a project funded by the UNUM Corporation. Findings from this project reveal that the total cost of workplace disability absorbs an average of 8 percent of payroll expenditures.¹ Thus, both public and private-sector economies are hard pressed by disability and the associated loss of revenues.

To understand the problem of workplace disability in America, one will benefit by evaluating how disability occurs and how organizations tend to perpetuate the myth of disability. Basic to this understanding is an appreciation of the difference between impairment and disability.

Impairment and Disability

The American Medical Association (AMA), in its document *Guides to the Evaluation of Permanent Impairment*, distinguishes clearly between impairment and disability. Impairment is a medical concept involving a change in one's health status. Impairment results from illness or disease. Disability, on the other hand, is a non-medical phenomenon, essentially the difference between an impaired individual's capacities and the social or occupational demands of a particular situation. Disability is a vocational concept.

If we are to reduce the cost of workplace disability and achieve the goal of the ADA/ADAAA by putting qualified individuals with disabilities to work, employers and their insurance carriers must recognize the distinction between disability and impairment. Indeed, employers and their disability-claims representatives should cease asking physicians, "Can Mr. Smith work?" or "Is Mr. Smith totally disabled?" The employer and Mr. Smith are in the best positions to answer these questions once medically determined capabilities (not disabilities) are defined. Physicians are generally not trained to answer questions of disability. Yet employers ask physicians these questions all the time, and they are disappointed by the response, "Mr. Smith cannot work; he is totally disabled."

In reality, the same impairment can result in different degrees of disability depending upon the specific work situation. For example, a complete amputation of a finger can leave a concert pianist totally disabled. But the same amputation may have little or no effect on an intra-city bus driver. The impairment is the same; the work is different and, therefore, so is the disability different.

Understanding the critical difference between impairment and disability has been liberating for many company human-resource and risk-management personnel. Charged with the responsibility of returning permanently impaired employees to work, risk managers now modify work or work settings to accommodate a worker's impairments and associated limitations, thereby reducing or totally eliminating disability. *Disability is, therefore, manageable.* When work changes or modifications are acceptable to both employee and employer, disability management can be a win-win human resource outcome.

Workplace modifications have been researched and described for nearly two decades by the Job Accommodation Network (JAN). JAN has found that most work accommodations are practical in nature and less expensive than most employers assume: 61 percent of all job accommodations cost less than \$750. Moreover, rehabilitation counselors and the employee are critical, essential resources for further understanding of how an individual with a particular impairment might become, or might continue to remain, productive. Most job incumbents know how their work tasks could be modified for efficiency's sake.

With the groundbreaking work of national agencies such as JAN, it is now apparent that we can actually manage disability in the workplace. It is like managing the objectives of a project or a program; taking charge of and managing workplace disability can be accomplished with imagination, clear objectives, and teamwork.

Employers can anticipate relief from occupational-disability costs when they realize that workplace reform supersedes any legislative reform, including the numerous proposals to overhaul dozens of state workers' compensation laws. As with most changes, some companies show leadership, and their programs serve as bellwethers for realistic and achievable disability management. Other companies, because they are less well-informed on the issues, continue to resist change.

A Leader

The Weyerhaeuser Company, listed among the 100 Best Companies to Work For in America, is a forest products company headquartered in Tacoma, Washington. The company has 45,000 employees working at 250 facilities in 36 states. These facilities include sawmills, logging stations, home-building sites, and other high-injury-risk operations. Twelve unions represent approximately 30,000 non-salaried personnel. Weyerhaeuser became a self-insured company in the late 1950s. In the early 1980s, the company was averaging more than 7,000 injuries a year. Workers' compensation costs had increased 750 percent, from \$3 million paid out in 1971 to over \$25 million in 1982. In addition, fewer and fewer employees were returning to work after on-the-job injuries.

In 1982, Weyerhaeuser changed its policy and began to administer its own workers' compensation program. The following disability-management objectives were established:

- a significant decrease in the number of employees injured on the job;
- an increase in return-to-work rates and fewer lost days;
- improvement in the quality of services provided to injured workers; and
- a reduction in workers' compensation costs.

Presently, Weyerhaeuser's Disability-Management Program (DMP) involves (1) careful selection and utilization of rehabilitation providers, (2) work-site accommodations, (3) employee assistance programs, and (4) an intense return-to-work program.

Weyerhaeuser has systematically tracked its health-care and workers' compensation costs since 1980, demonstrating that changes in corporate policies and practices have had significant impact.

- Weyerhaeuser has seen a rise in health care costs of only 5 percent per year since 1982. During the prior decade, such costs had increased 16 percent per year.
- Since 1984, Weyerhaeuser's workers' compensation costs have decreased 51 percent, and the cost per claim has decreased 18 percent. While costs increased from 1987 to 1988, reversing the trend, Weyerhaeuser again achieved substantial cost reductions during 1989 and 1990.
- The company has achieved a significant decrease in the workers' compensation claims rate, from 24 per 100 employees in 1985 to 15 per 100 employees in 1989.
- The company's lost-workday rate has dropped dramatically, from 102 days per 100 employees in 1985 to 53 days per 100 employees in 1989.
- Incurred costs per claim dropped from \$3,500 in 1985 to \$1,500 in 1989.

The most significant result is reflected in Weyerhaeuser's workers' compensation benefits experience when measured against national trends. While benefit payments nationally increased 400 percent from 1976 to 1980, Weyerhaeuser's leveled off in 1985, just after the company reorganized its workers' compensation and disability-management effort, and have continued to fall since that time.

The point to be made about the Weyerhaeuser experience is that when an employer recognizes that disabilities can be managed in the workplace, the costs to the employer can be significantly contained.

The Employer's Commitment

What specifically can be done? The awareness of the crucial difference between impairment and disability represents a starting point. With strong managerial support for policy creation and program implementation, disability in the workplace can be managed proactively. Sound hiring decisions, adequate training, organization-wide commitment to safety programs, job modifications, and employee assistance services are but a few methods that can help manage disability. Early intervention through case-management services and return-to-work policies reduces additional exposures. Current research tells us that DMPs can reduce the costs of workplace "disability" by 25 to 30 percent after the first year of implementation. To be optimally successful, the DMP must receive support and commitment from every sector of the organization (both internal and external). A "total quality management" approach to disability-cost reduction is necessary. Nearly every entity of the organization must be informed and involved, but no less than top-management support for the program will be sufficient. The more the disability-management philosophy represents the company's commitment to wellness and full utilization of its human resources, the greater the chances of the DMP's success. The more all employees are involved in and responsible for reaching disability-management objectives, the greater the chances that the organization will shrink its disability costs.

A Team Plan of Action

With the help of external consultants, an organizational disability-management team can create, implement, and evaluate a DMP evolving from the following phases:

- data collection/analysis
- planning
- program development and staff training
- program implementation
- summative evaluation & continuation planning

Disability-management teams will get the best results by including various representatives from the work organization. As growing concepts, total quality management and team problem-solving are essential elements to successful disability-management programming.¹ The ideal disability-management team might include the:

- case manager
- employee
- physician
- union steward
- claims representative
- safety director or designated disability manager
- legal representative

All of these individuals are potentially in critical relationships with the injured worker. Team members will take shared responsibility for problem identification, brainstorming solutions, and intra-team communication, all geared to managing disability. In essence, that is the message of this article. Disability, like any other organizational problem, can be managed. A team approach is best. "Safety first; safety last; but manage the disability in between." Manage the task, and lead people in the process. Reduction of disability-related expenditures is achievable.

In summary, disability in the workplace is a true challenge to the American employer. We have lived too long with the myth that we are "able bodied" forever, and that we work at "100 percent" all the time.

Meanwhile, we are losing billions of dollars annually because we do not understand the practical aspects of employing and re-employing workers on the basis of their abilities, as opposed to separating them from work on the basis of their disabilities. To find qualified, dedicated, and hard-working employees, employers need to clearly appreciate the difference between impairment and disability. They also need to make commitment to employing people on the basis of the contributions they make rather than on the perception that because they are "normal," they are more desirable as employees.

Disability management specialists and rehabilitation counselors are bound by the CDMS [Code of Professional Conduct](#) (RPC 1.13.3) and the CRCC [Code of Professional Ethics](#) for Rehabilitation Counselors (A.2.b.), respectively, to not condone or engage in discrimination based on age, color, race, national origin, culture, disability, ethnicity, gender, gender identity, religion/spirituality, sexual orientation, marital status/partnership, language preference, socioeconomic status, or any basis proscribed by law, employers should also reflect on individuals' abilities, rather than discriminating against them based on an impairment or injury. Additionally, the CCMC [Code of Professional Conduct](#) describes unprofessional behavior that would affect ethical responsibilities as including if a case manager *engages in conduct involving discrimination against a client because of race, ethnicity, religion, age, gender, sexual orientation, national origin, marital status, or disability/handicap* (S20-c).

Managing disability, employing individuals on the basis of their abilities, and returning injured or impaired employees to gainful activity offer cost-saving opportunities far greater than those presented by the myth that employing workers with disabilities is risky business. On the contrary, the escalating costs of disability insurance demand that we understand the difference between impairment and disability and proceed to proactively manage disability more than ever before.

Now, disability management is not only a federal mandate, it is an economic necessity.

References

- Berkowitz, M., Chelius, J., Dean, D., Galvin, D., & Watson, S. *The Full Cost of Disability Study*. UNUM Corporation and Washington Business Group on Health, 1989.
- Guides to the Evaluation of Permanent Impairment*, 3rd Ed., Revised. Chicago: American Medical Association, 1992.
- JAN offers a toll-free number providing results of their research and workplace modifications and job accommodations (1-800-526-7234).
- Akabas, S.A., Gates, L.B., & Galvin, D.E. *Disability Management*. New York: AMACOM, 1992.

Galvin, D., Habeck, R, & Kirchner, K. Leadership Forum on Disability Management. Washington Business Group on Health, October 1992.

Walker, J. M. "Injured worker helplessness: Critical Relationships and System Levels Appropriate for Intervention" *Journal of Occupational Rehabilitation*, Vol. 2, No. 4,1992.

Critical Issues Stemming from the Difference Between Impairment and Disability

by Jasen Walker, Ed.D., C.R.C., C.C.M.

Introduction

Litigation in personal-injury cases is generally focused on damages. The question is, "*What economic impact does the injury and resultant unemployment have on the plaintiff?*" The assessment of damages is a tripartite process that requires **each** of the following:

1. Medical expertise to assess impairment (mental and/or physical).
2. Vocational opinion to evaluate the occupational effect of the medical impairment.
3. Economic analysis, an effort to quantify monetary losses over the plaintiff's worklife expectancy.

The absence of any one of these inputs can invalidate the damage assessment.

Frequently there is confusion in litigation of personal injury regarding the difference among medical, vocational, and economic disciplines, particularly with regard to the distinction between medical impairment and vocational disability. This distinction is **critical** in facilitating a jury's or judge's understanding of how a particular individual is, or is not, vocationally disabled.

Occupational disability arises out of the discrepancy between what a person with an impairment, or history of impairment, can do and what a particular job demands of that person. Therefore, although the loss of a leg above the knee would totally disable an NFL wide receiver, at least in terms of playing professional football, the very same medical impairment, an above the knee amputation, would not necessarily cause disability for a trial lawyer. (This particular scenario could be modified to include psychiatric – or mental – impairment resulting from traumatic loss of the limb and a resultant anxiety and depression that interferes with the lawyer's cognitive status. If judged severe enough and permanent, the lawyer's diminution in pre-accident cognitive abilities could cause disability for practicing law effectively.)

The frequently encountered confusion between medical impairment and vocational disability obfuscates the certain findings and professional opinions sought by both members of the bar and the adjudicator assigned the responsibility of determining personal-injury damages. Specifically, physicians are generally not trained to evaluate occupational disability just as vocational experts are not generally trained to diagnose and treat the sources of medical impairment.

Key to this aspect of the role of the physician in the impairment-disability distinction is the precise language of the *Guides to the Evaluation of Permanent Impairment*, 5th Edition, 2000, a publication of the American Medical Association (AMA). The following definitions, stated at the outset of the *AMA Guides* (page 3) are critical to the understanding of the difference between impairment and disability:

- Impairment: A loss, a loss of use, or derangement of any body part, organ, system, or organ function
- Disability: An alteration of an individual's capacity to meet personal, social, or occupational demands because of an impairment.
- Physician's Role: Determine impairment, provide medical information **to assist** in disability determination.
- Comments: An impaired individual may or may not have a disability.

These definitions, stated for the use of medical practitioners by the AMA, clearly insist that the responsibility of the physician is with the impairment, **and the responsibility for determining disability lies elsewhere.**

While the duty and responsibility of the physician to determine "impairment" is spelled out by the AMA, there is no comparable authoritative documentation to insist on who is prepared, by professional credentials and experience, to determine "disability."

Because there is no source comparable to the *AMA Guides* to determine vocational disability, litigation cases frequently turn on the refusal of the justice system to conclude that when a physician decrees that a patient is “disabled,” the physician is not competent to do so. Parenthetically, there may be rare instances in which the physician is also trained as a vocational expert or the physician has access to a relevant job description that the competency argument may not apply.

The *Guides to the Evaluation of Permanent Impairment* is designed to provide physicians with a “tool for the **quantification** of impairment for legal purposes.” There is no comparable guide to quantify disability. Instead, the quantification is done by professionals trained in the application of tools such as the vocational evaluation, psychometric assessment methods and materials, labor market analysis, job analysis, ergonomic resources, job accommodation, etc. (In addition to the occupational specialist, a Labor Market Analysis specialist may also play a key role in bringing specificity to the pertinent reimbursement issues.)

What is needed is a way to bridge the gap between medical impairment and the extent of vocational disability. The key players in this transition are the attorneys, both plaintiff and defendant, who work with work-injury cases. It is these attorneys who are responsible for educating the justice system in the fundamental and crucial difference between impairment and disability, and the equally clear responsibility of physicians and vocational specialists in the resolution of instances in which these different realities are essential to the case.

The Problem

The problem of disability in America and its cost to our economy is a growing concern for both American business and for government. The Americans with Disability Act of 1990 and Americans with Disabilities Act with the Amendments Act of 2008 (ADA/ADAAA) are as much economic legislation as it is an extension of equal rights to all citizens. As it held hearing on the ADA, Congress heard considerable testimony regarding the economic impact of disability on American society. In particular, Title I of the ADA/ADAAA was promulgated as a result of a high rate of unemployment of Americans with disabilities, and unemployment in the year 2004 among Americans generally thought not to be disabled, has exacerbated the problem.

Many economic data are cited to support the importance of full employment of Americans with disabilities. For example, by the year 2015, the public will spend over one trillion dollars annually to maintain Social Security Disability Insurance recipients of working age. The full cost of disability in the workplace was studied in 1989 in a project funded by the UNUM Corporation. Findings from this project reveal that the cost of workplace disability absorbed an average of 8% of payroll expenditures. Thus, both public and private sector economies are hard pressed by disability and the associated loss of revenue.

Impairment v. Disability

If we are to reduce the cost of workplace disability, employers and their disability claims representatives must come to understand that in many, if not most, cases employees who have been injured can be returned to productivity. That is, when they are evaluated by certified vocational counselors, they are frequently found to be suitable for some aspect of productive work, in many instances something other than the job they did before injury. In reality, the same impairment can result in different degrees of disability depending upon the specific work situation. A complete amputation of a finger can leave a concert pianist totally disabled. But the same amputation may have little or no effect on an intra-city bus driver. The impairment is the same; the work is different and, therefore, so is the disability.

Understanding the critical difference between impairment and disability has been significant for many human resources and risk management personnel. Charged with the responsibility of decreasing employment costs, they have learned to solve the problem by returning permanently impaired employees to work. Through this process, risk managers have learned to modify work or work settings to accommodate a workers' impairment and associated limitations.

Work changes and modifications are increasingly more acceptable to both employees and employers, and the reality of this workplace acceptance now needs to be broadened to those professionals in the larger work injury system, especially the attorneys representing injured workers. Disability Management Programs are more-and-

more the norm, especially in well-managed companies. Attorneys need to recognize the success of these programs and support their clients, either individual employees or employers, by working for comparable acceptance in the litigation process.

Ethics in the Forensic Process

Both attorneys and rehabilitation counselors are bound by Codes of Ethics and Standards of Practices for their professions. The ethics that pertain to rehabilitation counselors include the CRCC [Code of Professional Ethics](#) for Rehabilitation Counselors (F.1.a):

Rehabilitation counselors produce unbiased, objective opinions and findings that can be substantiated by information and methodologies appropriate to the evaluation, which may include examination of individuals, research, and/or review of records. Rehabilitation counselors form opinions based on their professional knowledge and expertise that can be supported by the data gathered in evaluations. Rehabilitation counselors define the limits of their opinions or testimony, especially when an examination of individuals has not been conducted.

Those counselors who are also certified by the Certification of Disability Management Specialists (CDMS) Commission are similarly bound by The CDMS [Code of Professional Conduct](#) (RPC 3.01):

When providing forensic evaluations for an individual or organization, the primary obligation of certificants shall be to produce objective findings and opinions that can be substantiated based on information and techniques appropriate to the evaluation, and as required by applicable case law within the appropriate jurisdiction, which may include assessment of the individual and/or review of records. Certificants shall define the limits of their reports or testimony, especially when an assessment of the individual has not been conducted.

Case managers also have legal obligations stated within their [Code of Professional Conduct](#) (S12):

Board-Certified Case Managers (CCMs) will be knowledgeable about and act in accordance with federal, state, and local laws and procedures related to the scope of their practice regarding client consent, confidentiality, and the release of information.

In the same way, when representing employees in forensic cases, attorneys are responsible, at minimum:

1. To understand the significance of vocational disability as being different from medical impairment.
2. To understand that physicians are generally not competent to define the level of, or to quantify, disability.
3. That many, if not most injured workers, can return to productivity after treatment for a workplace injury.

Part II: Commentary on Act 53 and Rehabilitation Counselors' Dilemmas

by: Jasen M. Walker, Ed.D., C.R.C., C.C.M.

The following is commentary that CEC Associates, Inc., a disability management consultancy, recently offered to the Pennsylvania Bureau of Workers' Compensation and the Commission on Rehabilitation Counselor Certification regarding Act 53, which in December 2003 amended Act 57. This commentary references other documentation that is available from CEC Associates, Inc., in Valley Forge, Pennsylvania, upon request.

Background:

The Pennsylvania Workers' Compensation Act (PWCA) has never contained a provision for vocational rehabilitation. Historically, employers have had to demonstrate "job availability" in order to modify or terminate an employee's wage replacement benefits. Beginning sometime in the 1970s, it became a common practice to

hire rehabilitation counselors to evaluate injured employees and survey the labor market for employment that the injured employee was thought to be capable of performing. Much more often than not, the rehabilitation counselor-client (injured worker) relationship was adversarial in nature both because the PWCA had no provisions for vocational rehabilitation and because few employers offered work within their own organization to the injured employee.

Vocational evaluations almost always began an effort to “outplace” the injured worker (claimant). This outplacement process was sometimes successful for a variety of reasons, but, more often than not, it was unsuccessful for another variety of reasons. Sometimes they were unsuccessful because the injured worker was represented by a lawyer who was not in favor of a return to work that would result in a potential reduction or cessation of the worker’s wage replacement benefits. (In Pennsylvania, claimant’s counsel has the right to 20% of the represented claimant’s wage replacement benefits indefinitely.)

Without law governing an injured worker’s behavior and responsibility in the job placement process, so-called “job availability” became increasingly adversarial, and most disputes over available employment were settled in court. Injured workers would be evaluated; Rehabilitation Counselors would survey the labor market and present job opportunities to the injured worker who was sometimes resistant to vocational rehabilitation and job placement. Actual job placements became less frequent than “job availability” testimony offered by Rehabilitation Counselors. Defendants (employers) hoped that Rehabilitation Counselor testimony would be sufficient to petition the court for modification of the claimant’s benefits. As expected, this only increased the litigious nature of the “job availability” process.

When many of the “job availability” court decisions began to be challenged, case law addressed the ambiguities. The Pennsylvania workers’ compensation court system essentially answered questions that the legislative law had not been prepared to address, including the question of what constituted proof of “job availability.”

A number of decisions following a particular case known as *Kachinski* became particularly controversial, and, again, for a variety of reasons. The court system made decisions that were basically antithetical to the rehabilitation process as it was known. This series of decisions was sometimes referred to as the “Kachinski Doctrine.” (In this commentary, we will not go into those particular court decisions in detail, but we have listed as references Pennsylvania legal newspaper articles that might be helpful in understanding the evolution of this particular quagmire.)

However, two court cases following *Kachinski*, namely *Brown* and *Young*, led to defendant employers requesting Rehabilitation Counselors not only to disclose all aspects of the claimant’s medical history, but also to be present during job selection interviews. If Rehabilitation Counselors were found not to be present during the job interview, the potential job offer testimony could be considered hearsay. All of this nonsense made an already difficult situation for Rehabilitation Counselors not only more unmanageable, but generally unethical as well. Moreover, the PWCA case law and its demands of defendant employers helped to make the demonstration of job availability very expensive to the entire system. Because of escalating workers’ compensation costs in general, the Pennsylvania legislature enacted a new law, Act 57, in 1996.

Act 57:

Pennsylvania Workers’ Compensation Act 57 was a wholesale revision of PWCA, and among the revisions was an attempt by legislature to bury the “Kachinski Doctrine.” Among the new provisions of Act 57 was the definition of “earning power,” the mechanism by which employers could establish the claimant’s “partial disability” and associated reduction in benefits. According to Act 57, “In order to accurately assess the earning power of the employee, the insurer (employer or insurance carrier) may require the employee to submit to an interview by an expert approved by the department.” (For a more comprehensive look at establishing earning power under Act 57, please request a recent article, “Establishing Earning Power Under Act 57,” listed in the references.)

There were some bureaucratic complications associated with “experts” as “approved” by the Department, meaning the Bureau of Workers’ Compensation, and we will not discuss them here because they are largely irrelevant. However, resolution of those complications in fact required a Pennsylvania Supreme Court Decision, *Caso*, and further legislation in the form of Act 53, signed into law in December 2003.

Importantly, Pennsylvania Act 53 states:

“In order to accurately assess the earning power of the employee, the insurer may require the employee to submit to an interview by a vocational expert [approved by the Department and] who is selected by the insurer and who meets the minimum qualifications established by the Department through regulation. **The vocational expert shall comply with the code of professional ethics for rehabilitation counselors pertaining to the conduct of expert witnesses**(emphasis added).”

Here is where we believe Rehabilitation Counselors seek guidance. CRCs generally seem unsure of whether they are required to approach the injured worker (valuee) as a client to whom they might ultimately be asked to provide rehabilitation and job placement services or as an examinee that they are seeing for forensic purposes only. In fact, Act 57 was intended to reformulate the rehabilitation counselor-injured worker relationship to “earning power assessment” only, not to facilitate or imply vocational-rehabilitation services.

When the framers of the Workers’ Compensation Act reformulated the notion of “partial disability,” they considered the Social Security model of expert testimony, but, significantly, unlike Social Security Vocational Expert services, allowed for an “expert” interview. Thus, as they are written, PWCA 57 and Act 53 themselves would call for ethical behavior “**pertaining to the conduct of expert witnesses**” only. The problem arises when Rehabilitation Counselors agree to carry out “job availability” measures that reflect the “Kachinski Doctrine” perhaps because workers’ compensation insurance carriers, defense attorneys, and employers believe that the Workers’ Compensation judges remain adamant that “earning power” assessment alone is insufficient and that “job availability” testimony will still be necessary for the employer/defendant to meet its burden of proof. Apparently, case law is not nullified by legislative restructuring of the workers’ compensation act.

When the Rehabilitation Counselor agrees to pursue job placement-like steps to show “job availability” as opposed to simply formulating an opinion regarding “earning power,” the rehabilitation counselor-claimant relationship arguably changes and potentially involves ethical behaviors beyond those “pertaining to the conduct of expert witnesses.” Rehabilitation Counselors fear that claimant’s lawyers will argue in civil suits that the CRC has not adhered to the Code of Ethics and has committed “vocational malpractice.” (A recent workers’ compensation case, *Taylor v. Woods Rehab Services*, 2004 PA Superior, March 30, 2004, relinquishes jurisdiction and essentially allows the plaintiff to bring the suit to a civil court.)

CRCs fear that they will be sued for “vocational malpractice” if they agree (or acquiesce) to carry out both earning power assessments and/or “job availability” measures in order to satisfy a skeptical judge or to more fully provide the adjudicator with sufficient evidence that an injured worker can earn money. Keep in mind that while these dynamics are at play, lawyers representing injured employees want to force the defendant to present “job availability” evidence, and claimants’ lawyers argue for as much because job availability as opposed to earning power is a much more complex type of proof and a more difficult burden for the employer/defendant. In the *Taylor* case, the rehabilitation counselor, apparently not a CRC but an NCC, was caught in the dilemma of the “Kachinski Doctrine.”

CRCs anxious for referrals may be agreeing to practices that are both antiquated and questionably ethical at their core. For years, we have argued that discussing an injured worker’s complete medical history with prospective employers is highly inconsistent with the tenets of the Americans with Disabilities Act. However, Rehabilitation Counselors may still be attempting to show “job availability” in order to meet “legal” standards of proof, even though those standards have been ostensibly eliminated by Act 57.

Therefore, it is our belief that CRCs seek guidance around these issues and specifically the questions:

1. “What portions of the [Code of Professional Ethics](#) must they adhere to when the injured worker is simply an examinee for ‘earning power assessment’?”
2. “What codes become relevant when the Rehabilitation Counselor agrees to demonstrate job availability?” Essentially, does the latter make the injured worker a “client”?

Causal Attributions of Acquired Disability: Who Is Qualified to Make the Call?

By Jasen M. Walker and Fred Heffner

For several years, we have argued that the difference between medical **impairment** and occupational **disability** is not only a significant distinction, but one that must be recognized in the proper adjudication of damages in personal injury claims. In its Guides to the Evaluation of Permanent Impairment, the American Medical Association recognizes that “impairment” references an alteration of an individual’s health status and is assessed by medical means. “Disability” is an alteration of an individual’s capacity to meet personal, social, or occupational demands and is assessed by non-medical means.

This article offers the concept that in particular personal injury cases involving multiple impairments, the vocational expert may be the most qualified professional to speak to not only occupational disability but also the actual cause of that disability. The CRCC [Code of Professional Ethics](#) for Rehabilitation Counselors describes that process (F.1.a):

Rehabilitation counselors produce unbiased, objective opinions and findings that can be substantiated by information and methodologies appropriate to the evaluation, which may include examination of individuals, research, and/or review of records. Rehabilitation counselors define the limits of their opinions or testimony, especially when an examination of individuals has not been conducted. Rehabilitation counselors acting as expert witnesses generate written documentation, either in the form of casenotes or a report, as to their involvement and/or conclusions.

Heretofore, the misconception has been that physicians are trained and qualified to offer opinions with “medical certainty” as to why an individual can or cannot work. We suggest that this is an error in professional judgment on several levels, and if the legal community wishes to pursue accurate disability determinations, it must continue to educate its members as to which professionals are qualified to testify as to which of multiple permanent impairments caused the occupational disability in the same individual.

Consider this hypothetical. A 56-year-old longshoreman injures his right knee in a forklift accident. He is driving the forklift and collides with another piece of heavy equipment with brake failure. When the collision occurs, the longshoreman is thrust forward and strikes his right knee on a steering wheel mount and is later diagnosed as having traumatic chondromalacia of the patella and a probable anterior cruciate ligament disruption. He undergoes surgery and rehabilitation and feels he is able to return to work driving heavy equipment, including the same type of forklift he was operating at the time of his accident.

When he is denied a return to work by his employer, he initiates a lawsuit. In it, he argues that he cannot return to the full range of duties performed by his peers, including operating heavy equipment to unload cocoa beans from the ship’s holds as well as climbing ladders to cranes to strap and un-strap heavy cables on steel beams. However, the lawsuit contends he can perform the “essential function” of the job —operating a forklift— but that because of his injured right knee, he cannot perform all of the attendant, occasional functions. He receives medical support for his claim, in which his physician declares that he cannot climb, squat, kneel, and lift more than 50 pounds.

When the medical records are reviewed by a vocational expert, it is apparent that the longshoreman also has a **pre-injury** history of degenerative spine disease revealed on imaging studies. He also has a prior **left** knee injury, which was followed by an MRI that showed extensive arthritis in three compartments of the knee. There was also a pre-accident complaint of right shoulder pain. The orthopedic surgeon who examined the right knee following the forklift accident took a past medical history from his patient, and this information regarding the longshoreman’s pre-accident orthopedic impairments became available to all who read the orthopedic surgeon’s report. In that report, the longshoreman’s physician declares that his patient should not return to work. Nonetheless, the longshoreman undergoes arthroscopic surgery to the right knee and, after post-surgical physical therapy, returns to heavy moving equipment operation on the pier.

In his court case, the longshoreman argues, with the assistance of his vocational expert, that while he may be unable to perform heavy and very heavy work, he can do the essential function of his job. But the limitations mean that he is disabled and has lost at least a portion of his earning power.

The defendant in the lawsuit hires a vocational expert, a rehabilitation counselor, who is familiar with the demands of the longshoreman's work. This vocational expert knows that in order to perform heavy and very heavy work, one must be capable of lifting 100 pounds and over 100 pounds, respectively. Moreover, in order to carry out this work at those exertional levels, one must be capable of squatting and sometimes twisting while lifting such loads (i.e., bags of cocoa beans) off the floor of a cargo ship. At times, the longshoreman will have to climb straight ladders or steps to access the controls of his crane. The defendant's vocational expert testifies in court that the indexed accident and related injury, the right knee impairment at issue, is not the seminal cause of occupational disability for his client. Rather, they argue the obvious left knee impairment combined with the degenerative spine disease, **pre-existing** conditions, required consideration in the disposition of the case.

Plaintiff declares that defendant's vocational expert cannot offer such an opinion regarding the source of the longshoreman's disability since that opinion is "medical" in nature and not within the purview of a non-medical expert. Defendant counters that disability is a non-medical issue and that vocational experts are required to understand medical impairments and the exertional/non-exertional demands of work and how impairment interacts with exertional demands, to define the disability. In this case, defendant argues that the heavy and very heavy work requiring squatting, lifting 100+ pounds, climbing ladders and steps, and otherwise employing both knees and the back in arduous work were beyond the longshoreman's capacities even before the right knee injury at issue.

Who is right? What should a judge decide about these opinions and arguments? Does the determination of what constitutes occupational disability remain with the medical expert? Does the vocational expert possess the knowledge and skill to make a causal attribution of vocational disability when he knows that certain pre-existing or unrelated medical conditions would, in all probability, make certain work demands impossible?

Another example might prove useful. A lawyer suffers a stroke, and on the way to the hospital, the ambulance is involved in a vehicular accident. The lawyer is trapped under the wreckage and miraculously survives. However, when he does arrive at the emergency room, he presents with a significant compound fracture, and although the fracture is repaired, infection sets in. As a consequence, the lawyer loses his leg above the knee. The stroke, for its part, results in cognitive and language deficits. Through rehabilitation, the recovering amputee struggles with using a prosthesis and ultimately decides that life is easier in a wheelchair. He tries to return to his profession, but he struggles with neuropsychological impairment. A lawyer representing the amputee in court argues that the motor vehicle accident resulting in the compound fracture and resultant amputation has caused the lawyer occupational disability and lost earning power. Which of the medical impairments, the post-neuropsychological deficits or the post-amputation and ambulation problems causes the disability in the practice of law?

Although the causal attribution of occupational disability in the profession of the lawyer is more evident than in the work of the longshoreman, both scenarios represent a potential problem for those not fully appreciating the difference between medical impairment and occupational disability in the argument and adjudication of monetary damages associated with lost work capacity.

The vocational expert or disability analyst is frequently confronted with the problem of assessing the employability of individuals with a history of multiple medical impairments. More often than not, the expert is asked to opine as to the effect of trauma/injury on the occupational capabilities of an individual who has a pre-existing history of medical impairment. The disability analyst's challenge is to determine the effect of pre-existing impairments on the individual and how that particular effect is different in terms of disability than one brought about by trauma. Those disability analysts who are certified disability management specialists are bound by the CDMS [Code of Professional Conduct](#), which states (RPC 1.07),

When providing testimony in a judicial or non-judicial forum, certificant shall be impartial and limit testimony to their specific fields of expertise.

The CCMC provides standards regarding testimony as well. According to the CCMC [Code of Professional Conduct](#) (S18),

Board-Certified Case Managers (CCMs), when providing testimony in a judicial or non-judicial forum, will be impartial and limit testimony to their specific fields of expertise.

As an example, we hypothesize the case of a teacher who has had a long history of mental disorder, specifically a so-called manic depression that has not been well controlled. The teacher claims that because of a motor vehicle accident (MVA) and an associated whiplash injury, he suffers from chronic neck pain, dominant upper extremity radiculopathy, and headaches. It could be argued that the MVA injuries alone could constitute disability in classroom instruction. However, what effect would the uncontrolled bipolar disorder have upon the teacher's capacities to work? It would be difficult to resolve this issue on a logical basis. However, the history of this specific claimant's pre-existing mental disorder may be legally eliminated as a factor because it might produce prejudice for a fact finder or a jury.

In order to arrive at a point in vocational/disability analysis where informed and detailed assessment of future employability can take place, one must know the subject's past thoroughly. Not only is educational and occupational history relevant, but the subject's past medical history can be critical in accurately determining potential for future work, particularly occupational longevity or "worklife expectancy."

Worklife expectancy is commonly used in determining how long an individual will participate in the workforce given factors such as age, race, gender, and disability. Although they are hardly a data set without controversy, the Bureau of Census information on individuals absent from the workforce because of health-related problems is frequently cited by various vocational experts to argue disability. In a report called *The New Worklife Expectancy Tables* (1998), A.M. Gamboa, Jr., Ph.D., MBA, introduces the concept of worklife expectancies for persons defined as **severely disabled, disabled, not severely disabled, and non-disabled**.

Gamboa's hypothesis is that people with various (pre-incident/accident) medical problems are already disabled with some level of severity. The issue then becomes one of determining the level of severity. If the Gamboa hypothesis is correct, then how does a 54-year-old Certified Nursing Assistant (CNA) who is 5'4" tall and weighing 350 pounds (morbid obesity) claim that absent her lower back trauma, incurred from falling on a slippery floor (she is suing the floor cleaning contractor and the floor wax manufacturer), she would have worked until age 65 all the while lifting, bathing, and otherwise caring for geriatric patients, most of whom were non-ambulatory. Moreover, post-injury x-rays of the CNA's hips and knees show significant degenerative changes. Nonetheless, with the support of a vocational expert, she is claiming that she cannot work, but had she not slipped on the floor, she would have continued working full-time in direct patient care until normal retirement age.

Obviously, there is a need for reasonableness in these arguments of disability causation, but even competent vocational experts find themselves in the dark when faced with evaluating an individual who has multiple, and often times compounding, pre-existing medical problems to those present injuries for which the individual is now claiming vocational disability. What is clear is that in most cases the vocational expert who is trained and experienced in disability analysis is generally better prepared than a medical expert who may not fully appreciate the exertional and non-exertional demands of specific jobs, or for that matter, how those demands might be reasonably reduced by job accommodation. Although it is true that medical experts have greater training than vocational professionals in understanding physical and/or mental diseases, the critical factor in disability assessment is whether an individual with permanent impairment can function in relation to a particular set of job demands.

More than the existence of permanent impairment, the key occupational disability determinants are **functional capacity** and **job demands**. Functional capacity evaluations, with validity mechanisms helping to assess patient effort, have taken the place of physical (or mental) capacity checklists that physicians have heretofore completed at the request of an employer or its insurance carrier. Physician-completed checklists are more representative of guesswork rather than a reliable estimate of an impaired individual's residual capacities. Functional capacity evaluations are generally standardized strength protocols that provide information regarding the patient's abilities to lift, carry, reach, squat, etc. Parenthetically, evaluations of mental functional capacities have yet to be reliably formulated.

Armed with a detailed job description delineating the physical demands of the patient's (employee's) return to work option, a functional capacity evaluator would seem in good position to determine whether the employee can physically work in a particular job. However, state-of-the-art functional capacity evaluations that are designed to assess a patient's residual physical capacities for work have also failed to discriminate between pre-existing conditions that might limit the patient's exertional capabilities and those that the patient claims are responsible for causing a disability. So, for example, the 56-year-old longshoreman who claims that his right knee injury prevents him from manhandling 100-pound bags of cocoa beans may fail to qualify on a functional capacity evaluation, but not because of the right knee injury limitations alone. Rather, the disqualification would be because of the exertional deficits brought about by his pre-existing spinal disease and his prior left knee impairment.

Our bias that the vocational expert is better able to attribute disability to a particular cause and to define residual employability remains unaltered. Certainly, the medical professional is best qualified to identify and describe medical impairment (physical and/or mental) and, in some cases, the injured person's residual functional capacities. But the vocational expert, knowledgeable of medical impairments and their general effects on functioning, is far better able than any other medical professionals to state with certainty whether a particular individual possesses residual employability and, if so, what jobs the impaired individual is best suited to perform.

As we bring this article to a close, we must confess that the question, "Who is qualified to make the call on occupational disability?" is not answered to our absolute satisfaction. What has become apparent in our discussion is that neither expert, medical or vocational, may be in a position to make judgments regarding residual functional capacity, pre- and post-accident employability, or the attributional cause of vocational disability unless the expert is fully informed. A thorough and accurate history is necessary to assess pre-accident work longevity, to determine residual employability, and to causally ascribe occupational disability to a particular impairment. Possessing a complete and reliable history (preferably from documentation) places the expert charged with disability analysis in a better position to offer a professionally certain opinion.

Return to Work: Who Makes the Decision?

by: Jasen M. Walker, Ed.D., C.R.C., C.C.M.

Return-to-work practices constitute the keystone of most disability management programs, bringing prevention and early intervention strategies together with transition to work and occupational recovery. According to The CDMS [*Code of Professional Conduct*](#), disability management services are defined as:

The prevention and minimization of the human and economic impact of illness and disability for the employee/employer to optimize the quality of care, productivity, organizational health, and regulatory compliance. The goal of disability management is to provide necessary services, using appropriate resources in order to promote the ill or injured individual's maximum recovery and function. Disability management services include the following activities: case management; disability assessment and evaluation; return-to-work intervention; labor market analysis; career exploration and counseling; and reporting (plan development and report preparation).

Case managers are involved within disability management as they provide care coordination for their clients and are often required to work with multiple professional disciplines when offering services. According to the CCMC [*Code of Professional Conduct*](#), care coordination is the:

...deliberate organization of patient care activities between two or more participants (including the patient) involved in a patient's care to facilitate the appropriate delivery of health care services. Organizing care involves the marshalling of personnel and other resources to carry out all required patient care activities, and is often managed by the exchange of information among participants responsible for different aspects of care.

All state-of-the-art disability management includes reductions in absenteeism and maintenance of productivity through planned transition to work programs. Just who is responsible for an employee's return to work? Here we attempt to answer that question so that organizational members recognize their responsibilities in a return to work effort.

Historically, employers, claims people, and legal professionals have mistakenly relied heavily, if not exclusively, upon physicians to make return to work decisions. Physicians, however, are trained to diagnose and treat medical problems, not to decide what a company might do in terms of managing its human resources, including when an impaired individual might return to work. Ideally, that decision should come about through cooperation between informed health-care providers and company representatives. Obviously, a primary stakeholder in return to work is the recovering employee, and he or she needs to know employer expectations through the information available from a pro-active, well-documented Transition to Work policy that was part of the human resource management paradigm existing before the person was hired. In other words, return to work policy is made known to the employee at the time of hire as are other terms, conditions, and privileges (i.e. compensation, vacation time, succession potential) of contractual employment.

Allowing a return to work decision to be made by a physician by simply asking the question, "When can Joe come back to work?" is probably an employer's abdication of responsibility in fully managing its human resources. Moreover, without a detailed job description, a physician simply does not know what Joe might be required to do, and without the benefit of the organization's policies and procedures regarding return to work following the onset of injury or illness, a physician will not know Joe's return to work options, options that might include job accommodation or alternative assignment.

We will make our position on this issue perfectly clear. The employer through a pre-established set of guidelines facilitates a return to work decision that ideally includes the cooperation of the employee and the healthcare provider. These pre-established guidelines are in the form of a transition to work program. Transition to work programs (TWP's) are pre-established pathways by which employee absence is turned into employee return to productivity. Although customized by every employer to meet the needs of management and labor, the TWP is as integral to the established human resource policy and set of procedures as are the federally established Family Medical Leave Act, the ADA/ADAAA, and the state regulated workers' compensation programs. In fact,

the TWP must often interact with these other programs, but very clearly, employee return to work through TWP is a company decision, not one that the employer relinquishes and displaces to a healthcare provider.

Return-to-work processes begin immediately after the onset of injury and/or illness, particularly those that are deemed work-related. The guiding return-to-work process is called Case Management. The Case Management process is designed to expedite the process. The Case Management responsibilities are assigned to a staff member who is knowledgeable about the process, usually an experienced Human Resources professional or contract Case Manager (nurse). When the work organization is too small to have Human Resource professionals, the assignment goes to a staff member capable of working effectively with the treatment source as well as the pertinent staff members of the workplace.

The first step in the process is an early intervention following injury and/or illness, particularly if the occurrence is occupationally related. In many work-related injuries, an insurance carrier representative will suggest the utilization of an external Rehabilitation Case Manager, generally a nurse or rehabilitation counselor.

In the event of an accident, the Case Manager is charged with coordinating all of the individuals with interests in the case, including the family of the injured worker, the relevant health care providers, and the injured worker's supervisor. With the involvement of others, such as an insurance carrier representative or Case Manager, the Human Resource professional or designated employer representative should be careful to delegate, but not abdicate, responsibility for TTW. The employer still has responsibility for its lost time experience and any injured or impaired individual that they once hired to do a job.

This is not to say that healthcare providers do not play a key role in the ultimate decision of return to work. The American Medical Association has instructed its members in how to clear individual patients for the performance of job-related tasks, whether exertional or non-exertional activities associated with work assignments. With regard to exertional impairments (e.g. musculoskeletal injuries), increasingly residual functional capacity is defined through the execution of a Functional Capacity Evaluation (FCE). However, these assignments and associated tasks should be clearly delineated in essential function job descriptions, and ideally, the FCE would be job specific. Therefore, physician input and employees returned to work should ideally speak to the patient's residual functional capacity to perform well delineated work tasks found in a central function job description. Preferably, a job-specific functional capacity evaluation would advise a physician in this regard.

What remains curious to us is that although have traditionally utilized standardized testing to help make decisions regarding employee selection, they seem reluctant to perform the same testing in a comprehensive vocational assessment following injury or illness that consequently limits physical or mental capability. Aptitude tests, personality measures and other instruments designed to establish a new hire's readiness to perform a job opening have been utilized in numerous industries. Pre-employment aptitude testing helps to identify the abilities of a prospective employee, and personality measures have been used to assess emotional stability, reliability and integrity of candidates for employment. These tests generally have the same value and potential to shed light on a person's vocational possibilities after the onset of occupationally significant impairment. The tests are carefully selected, per the CRCC [Code of Professional Ethics](#) for Rehabilitation Counselors (G.5.a):

Rehabilitation counselors carefully consider the validity, reliability, psychometric limitations, and appropriateness of instruments when selecting tests for use in given situations or with particular clients.

We are somewhat disappointed that comprehensive vocational assessment has not become more integrated into thoughtful, proactive, complete disability management programs.

Just as we advocate that physicians should be provided with the opportunity to consider an essential functions job description, we encourage employers to make job descriptions available to contract vocational assessment specialists who have the expertise in comprehensively evaluating an injured workers' prospects for learning another job within the organization. Learning another job can possibly take place on the job or after short-term retraining (e.g. less than six months), perhaps while the injured worker is participating in a TWP. Vocational rehabilitation therefore takes place within the organization rather than outside of it, generally restoring the injured worker's confidence in the organization and ultimately saving the employer money. External job placement is seen as a last resort and perhaps the most expensive form of employee vocational restoration.

Reinforcing the Point: Employers Determine Who Can Return to Work

The Equal Employment Opportunity Commission (EEOC) is charged through the law of the land with the responsibility of determining compliance with the ADA. After Congress updated the ADA with the ADAAA of 2008, the EEOC published its interpretation of the Amendments. This document is titled "EEOC Enforcement Guidance: Workers' Compensation and the ADA."

Included in the "Enforcement Guidance" document is a response to a hypothetically posed question, which reads:

Under the ADA/ADAAA, is a rehabilitation counselor, physician, or other specialist responsible for deciding whether an employee with a disability-related occupational injury is ready to return to work?

EEOC response:

No. The employer bears the ultimate responsibility for deciding whether an employee with a disability-related occupational injury is ready to return to work. Therefore, the employer, rather than a rehabilitation counselor, physician, or other specialist, must determine whether an employee can perform the essential functions of the job, with or without reasonable accommodation...

Determining the Difference between Impairment and Disability:

The Sixth Edition of the AMA's Guides to the Evaluation of Permanent Impairment (2008) states:

Because of the difference between impairment and disability, physicians are encouraged to rate impairment on the level of impact that the condition has on the performance of daily living (ADL) **rather than on the performance of work related tasks**. According to the Guides, the impairment ratings derived from them are **not intended for use as direct determinants of work disability**. Other agencies that concur in the AMA's interpretation include the following:

- Social Security Administration (SSA)
- The World Health Organization (WHO)
- The EEOC

The concurring agencies, at one point or another, cite the AMA Guides as the authoritative source on this issue. The EEOC, which is responsible for overseeing compliance with the ADA/ADAAA, cites the specific definitions in the ADA/ADAAA that employers are required to adhere to in deciding on the disabilities that impact employment. Employers who do not adhere to these definitions can be required to do so, and may (will likely) lose litigations in which it is shown that they have not done so.

Creating and Operating a Transition-to-Work Program

To succeed at returning an employee to work, a planned, specific, and documented strategy is needed. The "plan" is created through the composite input of all of the principals in a situation, and the "Transition-to-Work Plan" is developed as a joint effort. Essential members of a Disability Management Team include the following:

- The employee
- The employee's immediate supervisor
- A representative of the medical profession
- A representative of the bargaining unit (if applicable)
- A Risk Manager/Human Resources Specialist
- A Case Management professional

It is not essential that all team members physically meet to develop the plan. A draft plan (strategy) can be given to the treating physician, for example, for input or, at least, consent in the form of an approval signature. A

communications protocol for getting treating physician input is a critical feature of the procedures that need to be developed.

Employers may also want to consider individuals with specific expertise as consultants to the construction of a given Transition Plan. For example, individuals with experience in ergonomics, a specific disability (hearing impairment, e.g.), and/or job redesign could represent cost-effective additions to the team in appropriate cases.

Caveat: It will be absolutely essential that the rehabilitating/transitioning employee understands the RTW program that is being designed for him/her, that he/she has had an opportunity to help to shape the plan, and that he/she accedes to the plan's objectives.

Sample Corp, Inc.

Transition-to-Work Plan

Employee Name _____

Employee Address _____

Telephone: _____

Date: _____

Treating Professional: _____

Address: _____

Telephone: _____

Summary of present treatment plan:

Summary of Functional Capacities (See attached for comprehensive Functional Capacity Evaluation):

Functional Capacity Update:

Changes (as determined by the attending physician) in the Functional Capacities as of

_____ (date).

Changes (as determined by the attending physician) in the Functional Capacities as of

_____ (date).

Start date of transition: _____

Projected # of weeks in transition: _____

Projected date of transition completion: _____

Employment Option:

_____ Same job

_____ Same job with accommodation

_____ Different job

_____ Different job with accommodation

Job Title: _____

SAMPLE JOB CONTENT (JOB DESCRIPTION) FORM

BASED ON THE ESSENTIAL FUNCTIONS OF THE JOB

Job Title: **Mold Press Operator**

Job Objective(s): **To heat cure-ring seals per specifications and ensure 100% quality control**

Essential Job Functions (Functions essential to attaining the Job Objectives):

- **Places compound (unfinished ring seal) onto loading board and stripper plates; loads compound onto mold**
- **Sprays lube over each mold using circular motion to ensure complete lubrication of mold**
- **Operates (pushes button to hydraulically activate) mold press to ease bottom molds up into stripper plate and to close presses**
- **Cleans flashing off molds; removes and inspects press**

Job Standards (Minimum qualifications needed to perform essential functions):

- **Repetitive fine manipulation; prolonged standing; able to lift loading board (23 lbs.) from shoulder height to above shoulder**
- **Pushing/pulling (43 lbs. resistance) stripper plate and knockout table**
- **Exposure to mold release mist and high temperatures; repetitive reaching waist to shoulder level; ability to discern imperfections of seals; ability to read process and attribute charts; ability to count time spent on press; ability to generate attribute chart information; tolerance to work alone with minimum or no supervision**

Job Location (Place where work is performed): **Mold Press Department**

Equipment: **Compound loading board; compound; stripper plate rings; lube (water and mold release solution); lube sprayer; attribute chart; heat press; air hose**

Transition Objective:

The objective should be stated in measurable terms. The objective must include precisely which job the employee is being readied for, the specific date by which the readiness preparation is intended to be achieved, and the job performance standards that will be expected. If an accommodation is involved, it needs to be specified in the objective.

A sample objective might look something like this:

To prepare {the employee named above} to be able to perform the job of Mold Press Operator. {The employee} will be able to perform, with or without a reasonable accommodation, each of the essential functions given in the Mold Press Operator Job Description (See Attached). The transition-to-work plan sets the number of weeks to achieve readiness at 12 weeks. The plan includes incremental length-of-day durations and exertion levels (See Attached). The output standard for parts produced per hour is set at 14 which is to be achieved incrementally over the 12 weeks prescribed in this plan. The spray gun used in this job will be suspended on a spring 8 inches above the employee's shoulder as he {she} stands before the mold.

Planned Schedule of Incremental Work:

Week	Projected Activity (Hours/Week)	Achieved Activity (Hours/Week)
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--

Weekly Strength/Exertion Review:

Week: Strength Level Exertion Level

--

Job Restructuring:

Ergonomic Considerations:

Assistive Devices:

Employee-Requested Accommodation(s):

Comments by Employee Regarding the Transition Plan

Supervisor's comments in terms of the job, the transitioning employee, and specific aspects of the "plan."

Comments by Bargaining Unit Representatives Regarding the Transition Plan

Signatures to the Plan

Employee: _____ (Signature)

_____ (Typed Name)

_____ (Date)

Supervisor: _____ (Signature)

_____ (Typed Name and Title)

_____ (Date)

Union: _____ (Signature)

_____ (Typed Name and Title)

_____ (Date)

Medical: _____ (Signature)

_____ (Typed Name and Title)

_____ (Date)

Personnel: _____ (Signature)

_____ (Typed Name and Title)

_____ (Date)

Quantitative and Qualitative Outcome Measures:

All newly implemented management concepts need to be evaluated for effectiveness. The Transition-to-Work program is no exception.

To measure the process quantitatively, the base standards need to be documented. Until Workers' Compensation costs began to skyrocket, many companies did not return many (most?) injured/ill workers to the company. Outsourcing was the typical approach. In those cases, Return-to-Work (RTW) programs were rare or non-existent, and there were no baseline data to measure how effective the program was or how much it saved.

What a company does in terms of its disability programming is financially significant, and if there is no extant database of information, a data gathering procedure should be designed and activated simultaneously with the Transition program.

Questions that should be answered as a result of the data gathered include such things as:

- Number of total cases per year
- Short term disabilities (STD) cases per year
- Long term disabilities (LTD) per year
- Total hours of lost time (and by wage/salary categories)
- Number of cases by breakouts (injury, same/different job, accommodation required, length of time on job after transition, female vs. male, department within the company, transition cost by department, injuries by department, etc.)
- Type of injury/illness
- Cases by length of transition
- Costs of transition
- Case management statistics

Flexible Return-to-Work Options Bridge the Gap Between Injury and Full Duty

The April 5, 1997, issue of the Pennsylvania Bulletin was given over to a "Statement of Policy" on Act 57 of the Workers' Compensation Act. This statement was created by the Department of Labor to "explain and enforce

the provisions of the WC act.” That is, these statements indicate what standards employers will be held to in terms of Act 57 compliance.

Section 306(B)(2) of Act 57, the Pennsylvania Workers’ Compensation Act, states:

If the employer has a specific job vacancy the employee is capable of performing, the employer shall offer such job to the employee.

The language in Pennsylvania’s workers’ compensation law challenges employers to have pro-active Return-to-Work (RTW) programs, and there are compelling reasons every employer should want to do so to:

1. save significantly on workers’ compensation costs, and
2. reduce exposure to disability discrimination lawsuits under the Americans with Disabilities Act of 1990.

Over the past several years, employers have frequently resolved their injured worker situations by asking Vocational Rehabilitation specialists to find new jobs for these workers. Now, studies of this approach to workplace injuries have shown that a Return-To-Work program is by far more effective for employers than traditional outsourcing. In fact, a Return-to-Work program in a medium-sized company reduces lost-time indemnities by 20-40%. In addition to these significant cost-of-doing-business savings, RTW programs:

- provide an opportunity for the employee to be productive while he/she is recovering
- accelerate reintegration into the workforce and help the employee feel positive about his/her life
- preclude employers from becoming “disability hostages.”

To assist employers who are not presently sponsoring RTW programs in their work organizations, CEC Associates, Inc. offers a comprehensive program to:

1. create a Return-to Work program and
2. train professional staff to implement it.

Conclusion:

We remain steadfast in our belief that employers engaging injured workers and consulting with physicians ultimately make return to work decisions. Employers may wish to delegate responsibilities such as case management, functional capacity assessment and comprehensive vocational evaluation to specialists under contract, but employers would be remiss to abdicate the responsibility of deciding when an injured or ill employee should return to work.

Assessing Occupational Disability Following Trauma and Impairment

By Jasen M. Walker, Ed.D., Stacey A. Petersen, M.S., and Elizabeth McLaughlin, B.A.

Rehabilitation professionals have come to recognize the importance of comprehensive assessment in evaluating the employability of individuals who may have acquired occupational disability secondary to trauma. Disability evaluation and rehabilitation professionals do not always agree on nomenclature and specific methodologies, and as a result, both the meaning and practice of assessing disability following trauma vary. For many years, however, occupational disability assessment and vocational rehabilitation following trauma have been considered comprehensive, intra-disciplinary processes of evaluating an individual's physical, mental, and emotional abilities; limitations from identifiable medical impairment; and residual functional capacities in order to help the injured person experience optimal restoration (Power, 1991).

The National Institute on Disability and Research (1992) summarizes the role of assessment and measurement in rehabilitation as follows: "Consumers are measured to establish their eligibility for benefits or services, to determine which services are appropriate, to assess their needs, to ascertain their current level of functioning, and to estimate their potential" (p. 1). Cushman and Scherer (1995) note that Anne Anastasi presented three definitions of assessment during her 1993 Master Lecture at the 100th American Psychological Association Annual Meeting: (a) testing as a whole, (b) any information-gathering technique regarding individual behavior, and (c) the clinical and intensive study of an individual in which test scores are considered together with all of the relevant data and information. Cushman and Scherer declare that they prefer the third definition, and we concur.

Disability assessment integrates medical, psychological, social, educational, vocational, cultural, and psychometric data into a process that explains the effects of medical impairment on an individual's occupational capabilities. Despite the recognition that comprehensive assessment is fundamental to disability evaluation and occupational rehabilitation, the practice of disability evaluation following the onset of impairment remains highly eclectic. Moreover, notwithstanding the growing appreciation for the difference between medical impairment and occupational disability (Holmes, 2007), many physicians are still asked to determine vocational capacity.

In this article, we will define the lexicon of vocational/disability evaluation and occupational rehabilitation, trace its origin, briefly review relevant literature related to assessment of impairment and evaluation of disability following trauma, and proceed to describe a model of vocational disability assessment. We will make our bias known. That is, physicians diagnose disease and attempt to ameliorate the effects of disease and impairment. Vocational evaluators trained in a variety of social and psychological disciplines, generally allied with but outside of medicine, assess disability.

Accurate assessment of vocational disability following injury or trauma should be a concern for healthcare professionals, employers, public policymakers, and society in general. If for no other reason, human injury is expensive. Direct medical costs and indirect costs, such as lost productivity due to traumatic brain injury (TBI) alone, totaled an estimated \$60 billion in the United States in 2000 (Finkelstein, Corso, & Miller, 2006). The U.S. Bureau of the Census (2006) estimates that in 2003 medical costs for injured workers were \$25.6 billion and compensation payments were in excess of \$26.9 billion. The National Safety Council (2007) reports that the economic impact of fatal and nonfatal unintentional injuries amounted to \$625.5 billion in 2005.

A multi-phased economic study has replicated findings that workplace disability costs the average American employer just over 8 percent of payroll (Berkowitz, Chelius, & Dean, 1992; Berkowitz, Chelius & O'Leary, 1994; Berkowitz & O'Leary, 1997). If one were to consider a company with a modest \$6 million payroll (100 employees averaging \$60,000 in annual wages and benefits), annual disability costs at that company would average \$480,000.

Traumatic injury and resultant disability are expensive. Precision and accuracy in disability assessments can only benefit the individual being evaluated, employers, and society in general, as inaccurate assessments are likely to be the subject of scrutiny, further inquiry, misguided treatment, and additional expense. Precise assessment begins with differentiating among the phenomena of trauma, impairment, and disability.

Trauma

People arrive at the disability evaluation process most often following trauma. The term “trauma” originates from the Greek word meaning “wound.” Bodily trauma can take place in many ways. Slip and falls, motor vehicle collisions, work accidents, physical assaults, shootings, and surgeries can cause trauma. Mild physical trauma does not always cause damage. For example, striking one’s elbow on the arm of a chair (hitting the “funny bone”) is a mild form of trauma that seldom causes damage to the organism, and if it does, the damage is not necessarily permanent. However, ulnar nerve injuries can cause permanent damage, and when irreversible damage occurs, the trauma has caused anatomic and/or physiologic change, which is described in this article as impairment.

Definitions of trauma are myriad and too diverse to adequately summarize here. Classen and Koopman (1993) describe trauma as “an abrupt physical disruption in ordinary daily experience, often with loss of control over the body” (p. 178). Courtois (2004) speaks to complex trauma as “a type of trauma that occurs repeatedly and cumulatively, usually over a period of time and within specific relationships and contexts” (p. 412). The American Psychological Association’s *Dictionary of Psychology* (VandenBos, 2007) defines trauma as a physical injury or event in which a person witnesses or experiences a threat to his or her own life or physical safety or that of others, and as a consequence, also experiences fear, terror, or helplessness.

Trauma can be the result of a single event or repetitive exposures to environmental forces. Industrial explosions can cause trauma. Repetitive assembly operations can cause trauma and injury. Repetitive trauma often occurs because muscles are repeatedly stressed, tendons become inflamed, nerves get pinched, or blood flow becomes restricted (Van Fleet & Bates, 1995). The effects of trauma can be numerous and physical and/or psychological in nature.

Psychological responses during and related to trauma include temporary psychophysiological reactions and development of permanent mental disorder. Dissociative symptoms concomitant to traumatic experiences include stupor, derealization, depersonalization, numbing, and amnesia for the event (Classen & Koopman, 1993). Survivors of automobile accidents often report a dulling of senses during the accident (Noyes, Hoenk, Kuperman & Slymen, 1977, as cited in Classen & Koopman, 1993). Traumas that are seen as being caused by others (e.g., rape, assault, toxic accidents) generally have greater psychological effect on victims and their significant others than those caused by natural disasters (e.g., earthquakes) (VandenBos, 2007).

Acute stress disorder (ASD) is a diagnosis in the American Psychiatric Association’s *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision* (DSM-IV-TR) (2000), and by definition, ASD should resolve within four weeks after the conclusion of the traumatic event. However, psychological responses to trauma can be more enduring and pervasive. Post-traumatic stress disorder (PTSD) is a diagnosis that grew from the observations and formulations of researchers concerned with the devastating effects of war trauma on individual soldiers, but according to the DSM-IV-TR, PTSD can occur at any age, including childhood. Survivors of rape, child abuse, domestic violence, and other traumatic experiences can also develop PTSD. Moreover, chronic PTSD has been linked with diminished health and longevity of Vietnam War veterans (Boscarino, 2005). As the result of severe, cumulative, or complex trauma, maladaptive psychological responses can be chronic and debilitating.

According to Herman (Herman, 1992a, 1992b, as cited in Courtois, 2004), symptoms associated with complex PTSD include alterations in the regulation of affective impulses, attention and consciousness, self-perceptions, perception of the perpetrators, relationships with others, position and/or medical problems, and alterations in systems of meaning.

Not all traumatic injuries produce enduring psychological sequelae. When it does occur as a result of trauma, dissociation, for example, does not necessarily persist (Esposito & Mellman, 2005). Likewise, other psychological symptoms to trauma have been found to abate with time. Grunert, Devine, Matlaub, Sanger, Yousef, Anderson, et al., (1992) discovered that the majority of workers with injured hands assessed five days post-injury reported flashbacks and nightmares. At 3, 6, 12, and 18 month follow-ups, however, many of these non-exertional symptoms had diminished, although some, including flashbacks and avoidance behaviors, persisted.

Trauma may be described as being mild, moderate, or severe, but vague scales in the evaluation process are qualitative or descriptive at best and may provide little meaning in the assessment of impairment and disability. What is clear is that trauma can produce physical and/or mental damage to the individual. With time, the effects of trauma can abate, but the residuum from trauma may be permanent and can be measured in terms of impairment, physical and/or mental.

Impairment

Impairment is defined by the American Medical Association (Cocchiarella & Andersson, 2001) as the loss, loss of use, or derangement of any body part, system, or function. Impairments may be exertional or non-exertional in nature. The Social Security Administration (SSA) offers a Program Policy Statement (SSA, 1978) that clarifies the distinction between exertional and non-exertional impairments. Exertional impairment affects the performance of work activities involving strength and endurance, such as standing, walking, lifting, and otherwise performing the essential requirements of sedentary, light, medium, heavy, or very heavy work. A non-exertional impairment is one that is medically determinable and causes functional limitation generally unrelated to strength or environmental restriction. For example, a speech impairment or a hearing disorder may be considered a non-exertional impairment. Most mental disorders can be classified as non-exertional impairments. One would expect licensed clinical social workers, psychologists, and psychiatrists to diagnose a mental impairment and hopefully assess its effects on mental and emotional functioning.

In fact, those who are certified by the CRCC are ethically required by the [Code of Professional Ethics](#) for Rehabilitation Counselors (G.3.c.) to consider the “historical and social prejudices in diagnosis and the diagnosis of pathology”:

Rehabilitation counselors recognize historical and social prejudices in the misdiagnosis and pathologizing of certain individuals and groups. Rehabilitation counselors may refrain from making and/or reporting a diagnosis if they believe it would cause harm to clients or others.

Impairment is evaluated in a variety of ways and is customarily the purview of healthcare providers with a particular expertise related to the type of injury, illness, or impairment. Therefore, orthopedic surgeons are concerned with trauma to the musculoskeletal system, including bones, joints, and muscles. Neurologists assess what is thought to be impairment of the central and peripheral nervous systems, and neuropsychologists generally assess cognitive deficits and other changes in brain behavior. Psychiatrists and psychologists diagnose and assess mental and emotional disorders. The American Psychiatric Association relies upon the DSM-IV-TR (2000) to categorize mental disorders and provide criteria for diagnosis. In its introduction, the DSM-IV-TR reminds its readers that the term “mental disorder” implies an unfortunate distinction between “mental” and “physical,” as the compelling literature documents that the mind/body dualism is misleading: “...there is much ‘physical’ in ‘mental’ disorders and much ‘mental’ in ‘physical’ disorders” (p. xxx).

Each healthcare specialist possesses more or less reliable methodologies to assess the nature and degree of impairment. When necessary, there may be attempts to determine the permanency of impairment. Diagnoses and impairments, however, are insufficient to provide a basis for disability. The critical link between impairment and disability is functional capacity.

Functional Capacity: The Critical Link

The critical link or keystone between impairment and disability is functional capacity, and in disability evaluation, accurately determining functional capacity is of significant importance in evaluating disability and predicting employability. Nonetheless, the evaluation of an individual’s residual functional capacities following trauma remains a challenge for rehabilitation professionals. Among the primary issues are the validity and reliability of functional capacity assessments (King, 2004). Although thought to be a substantial improvement over the practice of a physician simply filling out a physical capacity checklist, solid empirical data with respect to the validity and reliability of the functional capacity evaluation (FCE) are still lacking. Randolph, Nguyen, and Osborne (as cited in Talmage & Melhorn, 2005) recommend that the FCE be used in conjunction with the practitioner’s thorough understanding of the examinee’s health problem and medical history. Still, at its face, the FCE appears to be an improvement over the so-called “educated guess” offered by most physicians in response to questions regarding the injured person’s post-injury physical capacities.

Similarly, psychiatric and/or psychological statements regarding residual mental functional capacity may be deemed dubiously valid and reliable in terms of predicting an individual's disability and employability. The Global Assessment of Functioning (GAF) forms the fifth axis of the standardized diagnostic procedure followed in the DSM-IV-TR (2000) and seeks to quantify psychological, social, and occupational functioning on a continuum of mental illness. Knowing the diagnosis and GAF of the individual with mental impairment is likely to be insufficient in accurately assessing the degree of motivation, self-control, functional skills, and tolerance for stress that individuals bring to prospective employment.

Because trauma can result in permanent physical and/or mental impairment and functional capacity assessments are currently designed only to investigate the impaired person's physical capacities, rehabilitation professionals must turn to other assessment tools and procedures to appreciate the examinee's residual employability following trauma that may have resulted in mental impairment and associated dysfunction. The SSA (2005) cites limitations in concentration, persistence, or pace as representative of disabling mental impairment. Fortunately, significant attention has been paid to the validity and reliability of mental measurements, including standardized psychological and vocational tests that can measure an individual's concentration, persistence, and pace. Unfortunately, psychological and vocational testing in disability assessments is not always employed, and when utilized, psychometrics in vocational disability evaluation are not always administered with issues of ecological validity in mind.

Ecological validity refers to the real world meaningfulness of data-gathering activities. The term "ecological validity" was coined by Egon Brunswik (Hammond, 1998), who was concerned with ergonomics, the application of human factors in the design of objects and systems in the environment. How a person behaves at the time of an FCE or disability assessment may not necessarily predict how the person will function in a work setting, and that reality may be the main challenge to rehabilitation assessment professionals, that is, how to design and standardize valid and reliable disability assessment protocols.

Disability

In describing the relationship of trauma and impairment to occupational disability, one must reiterate the important distinction between impairment and disability (Walker, 1993). The *AMA Guides* (Cocchiarella & Andersson, 2001) notes the difference between impairment and disability. As referenced above, impairment is defined as "a loss, loss of use, or derangement of any body part, organ system, or organ function" (p. 3) and is best evaluated by medical means. On the other hand, disability is "an alteration of an individual's capacity to meet personal, social, or occupational demands" (p. 3). The World Health Organization (WHO) (2007) defines disability as an activity limitation that creates a difficulty in the performance, accomplishment, or completion of an activity in a manner that is within the range considered normal for a human being. The Americans with Disabilities Act of 1990 (U.S. Department of Justice, 2007) speaks to disability as the individual having a physical or mental impairment that substantially limits one or more of life's major activities, having a record of impairment, or being regarded as having an impairment. In this article, we are concerned with the vocational consequences of medical impairment, and therefore, occupational disability and post-injury employability.

Occupational disability may be defined as an individual's loss or limitations in employment capabilities secondary to physical and/or mental impairment. Vocational disability can have a strong social component. Observations and research have shown that vocational disability can be induced by social dynamics and that disability can be ameliorated or managed through psychological and social interventions, transition-to-work, ergonomic assistance, or career change, to name a few (Walker & Heffner, 2006). Vocational or occupational disability is best assessed by qualified evaluators who possess an understanding of medical impairments and their effects on functionality. Through comprehensive assessment, vocational disability evaluators can develop an accurate prediction of how the individual's history of impairment will impact the essential functions of employment for which he or she is best qualified given the person's residual physical capabilities, age, education, work skills, potentials to benefit from retraining, and return-to-work possibilities through job re-engineering.

Scheer (1991) pointed out that society is accustomed to putting physicians in decision-making roles for assessing work capacity or vocational disability and expecting them to make disability determinations, often without collaborating with other assessment professionals. By training, however, physicians are ill-prepared to assess work disability, capability, and employability. Nonetheless, the family physician in particular is commonly

called upon to serve as an occupational health physician and to assess vocational capacity. Walker (2007) and others (Growick, 2004) have described, in detail, the problems facing physicians and other healthcare professionals (i.e., physical and occupational therapists) in assessing an individual's functional capacity following physical injury or illness, and yet, assessing functional capacity is only part of the tripartite analysis (i.e., impairment, functionality, and residual employability) of disability. Following the occurrence of trauma, impairment and then functionality must be carefully investigated prior to determining the examinee's occupational disability, and assessing his or her employability.

Rehabilitation professionals trained in vocational disability evaluation realize that assessment of occupational disability following trauma is a comprehensive, intra-disciplinary process of evaluating an injured individual's physical, mental, and emotional capacities in an effort to identify an optimal vocational fit and, in most cases, a return to work (Power, 1991). In forensic vocational disability assessments, those carried out for court purposes, rehabilitation is probably not the goal. Nonetheless, assessment is the same and involves gathering and integration of data for purposes of making evaluations, decisions, or recommendations (VandenBos, 2007, p.751). Assessing vocational disability following trauma for any purpose is logically multidisciplinary, integrating information from a variety of sources, as accurate assessment requires reliable data from more than one specialty.

Assessing disability and employability following trauma begins with appreciating the functional effects of impairment, and the various assessment methodologies employed to determine functional capacity are dictated to some extent by the nature of the impairment(s). Assessment of occupational disability following brain injury resulting in both exertional or strength deficits (e.g., hemiplegia) and non-exertional impairments (i.e., cognitive and emotional deficits) will likely require physical capacity testing, neuropsychological investigation, and ultimately, vocational evaluation, the latter to determine if the individual with multiple impairments can still carry out work-related activities on a competitive level.

Assessment strategies for determining disability are therefore dictated to a large extent by the nature of the permanent impairments presented at the time of evaluation. An individual with a permanent impairment of the lumbar spine following a work-related trauma involving lifting may not demonstrate post-accident psychological problems and may require no more than physical capacity testing after reaching maximum medical improvement through physiotherapy.

Thorough assessment of disability following trauma, however, requires a comprehensive and detailed investigation of an individual's medical history and residual functional capacities. The examinee's social and family background, educational history, acquisition of vocational skills through experience, and potentials to acquire additional skills through post-injury training and/or job experience are critical areas of inquiry.

The more thorough the assessment, the more likely it is to carry ecological validity. The prediction of vocational functioning from laboratory or clinical diagnoses alone remains a concern. The rehabilitation professional wants to know how an examinee's performance on an FCE and scores on various tests compare to what is expected in a job description or in relation to those performances of unimpaired cohorts with whom the examinee will compete in the labor market.

In terms of assessing the occupational disability and residual employability of individuals experiencing psychiatric or psychological symptoms following trauma, the input from treating mental health professionals regarding the examinee's diagnosis and capacities for non-exertional work demands can be helpful. For example, whether the psychologically impaired person can communicate and cooperate with others in a workplace is essential in determining if a person is disabled from the essential function of teamwork. Moos, Nichol, and Moos (2002) conducted research that led them to conclude that GAF ratings were only minimally associated with treatment outcomes and were of questionable value in a program for predicting the allocation and outcomes of mental healthcare. No consistent relationship has been identified between psychiatric symptoms and vocational performance, making diagnostic categories poor predictors of future work performance (Anthony & Jansen, 1984). On the other hand, a person's functional capabilities and occupational adjustment exhibited in a clinical setting and in response to work-like tasks, such as problems on psychological tests and work samples, may still be important observational data in assessing disability and residual employability. For example, whether the psychologically impaired person can communicate and cooperate effectively with others in an evaluation would seem to have merit in terms of predicting work behaviors.

Likewise, because standardized tests are designed to measure behaviors, a person's performances on appropriately selected psychological and vocational measures would seem to have value in predicting work performance following the onset of impairment.

It is in light of the experience and research of others that we advocate multidisciplinary, comprehensive assessment to include: documentation regarding the examinee's medical history and disabling impairment, careful observation during a detailed structured clinical interview, and analysis of relevant data from both functional capacity assessments and psychological/vocational testing. Assessing occupational disability is greatly enhanced through "clinical and intensive study of an individual in which test scores are considered together with all other relevant data and information" (Cushman & Scherer, 1995, p. 3). As stated above, we concur with Anastasi (as cited in Scherer, 1995) and propose a three-part model to disability assessment: 1) review of detailed documentation, 2) structured clinical interview data, and 3) results of ecologically valid psychovocational testing.

Assessing Disability: Practical Applications

Although there are many elements of investigation that have the potential to contribute to disability assessment, beginning with determination of physical or mental impairment, the findings of impairment alone should not be considered equivalent to disability. As stated, there is a sometimes considerable difference between impairment and disability. Walker and Heffner (2006) note that the presence of impairment alone does not determine an individual's capacity to meet social or occupational demands. Disability is more complex than a change in mental or physical functioning secondary to impairment; it is a multifaceted combination of physical, social, and psychological factors. Breeding (2005) recognizes that the impact of a medical impairment largely depends on the perception of the person affected, and he adds that the psychosocial impact on two people with identical impairments can be quite different.

A major objective of disability assessment is to determine an individual's capacity to meet social and occupational demands. The goal of the disability assessment process is to develop a detailed picture of the individual being evaluated, including, among other factors, medical impairments, residual functional capacities, post-injury aptitudes and skills, personality characteristics, the environments in which the individual might again live and work, and levels of functioning prior to impairment. The individual's entire medical history is often important in disability assessment. Disease entities and resultant limitations can be antecedent to and a consequence of trauma, and these co-morbidities, regardless of onset, may be occupationally significant. Due to the encompassing nature of disability, the information needed to adequately assess disability is necessarily comprehensive.

Although the methods for assessing disability in a forensic setting remain the same as for rehabilitation purposes, the goal of the former is often to answer a legal question. Typically, it is a question of whether an individual has incurred reduced employment capacity and/or lost potential to earn wages occupationally. Assessment for rehabilitation purposes generally produces recommendations, and forensic vocational disability evaluation aims to answer legal questions. Ideally, the initial assessment processes and methodologies remain the same.

It is important to consider the question of who is qualified to conduct disability assessments. Walker and Heffner (2006) indicate that it is a common misconception that members of the medical field are qualified to make determinations about disability. There are several concerns associated with this misconception, particularly as the determination of disability is reliant on many factors apart from medical expertise alone, and are therefore beyond the purview of physicians (Scheer, 1991; Cocchiarella & Andersson, 2001; Talmage & Melhorn, 2005). The assessment of disability also requires training in the nature and demands of multiple forms of work and what is required of individuals to successfully participate socially in a work setting. Sleister (2000) correctly notes that the reliance on physicians and economists to provide assessment of an individual's capacity to work following impairment is ineffective, as they do not have the expertise to speak to qualifications, physical requirements, or earnings for the more than 20,000 jobs in the U.S. labor market.

Often, in cases of personal injury where disability assessment is required, vocational experts are the most qualified. Sleister (2000) provides a comprehensive discussion on the qualifications and abilities of vocational experts, which include knowledge of the psychosocial aspects of disability and a variety of occupational skills

and characteristics. Weed and Field (2001) discuss the role of vocational or rehabilitation experts as professionals who are knowledgeable in vocational, educational, and psychological assessment practices. Weed and Field provide an overview of the forensic disability evaluation process. Ultimately, the disability assessor needs to be able to synthesize information from a variety of sources while maintaining a focus on ecological validity.

The Elements of a Disability Assessment

Although Thomas (1999) notes that some feel the present state of vocational evaluation has lost its utility and that the formal process associated with disability assessment should be altered to reflect more of a screening process driven by self-report, we argue that thorough and accurate assessment should consist of three main parts: a review of pertinent documentation, a clinical interview, and the administration of standardized testing. Berven (as cited in Bolton, 2001) similarly describes assessment for rehabilitative purposes as being constructed of a review of client records, clinical interviews, observations, examinations by other professionals, and formal testing.

Before presenting each of these data-gathering areas in some detail, it is noteworthy to mention that reliance on a clinical interview solely is fraught with potential for error. Meyer, Finn, Eyde, Kay, Moreland, Dies, et al. (2001) highlight several possible errors, such as gathering data from poor or unreliable historians, using overly narrow interview formats, and having an inability to objectively determine exaggerated or biased self-reporting. It is also worth noting that through the use of testing in conjunction with interviews, the evaluator is able to measure a variety of features at the same time, compare individual performances to relevant norm groups, and follow standardized scoring and administration procedures, which lessen possible legal and ethical conflicts and likely increase the validity of the findings.

Sleister (2000) notes that throughout a disability assessment, a skilled evaluator must be able to observe and assess personal characteristics, educational potential, and related work histories, which would be difficult to complete accurately through reliance on self-report alone. Additionally, Breeding (2005) points out that in the research on disability, no link exists between the physical severity of an injury or illness and the psychosocial effects it has on a given individual and, therefore, disability cannot adequately be assessed through medical examination alone.

Many disability evaluators have traditionally relied on a transferability of skills analysis (TSA), a process of investigating the skills and traits a person has demonstrated during his or her working life in order to recommend alternative job placement or retraining options after the establishment of impairment. Despite its broad acceptance in the field of disability evaluation, we suggest that a TSA is not comprehensive enough to adequately assess disability and has several inherent flaws that lend against its use. In fact, findings suggest that little research, particularly empirical research, has been conducted to speak to the validity and usefulness of the practice (Dunn & Growick, 2000).

A major criticism of the TSA is its rigidity, which often leads evaluators to overlook a range of alternate occupations available to a person simply because it falls outside of the description of his or her customary employment. TSAs actually evaluate the essential functions of job descriptions that the person reportedly carried out and intend to predict what skills the individual should be capable of doing with functional limitations. However, an individual's self-report of work history, job titles held, and specific work responsibilities is not a reliable method of assuring that the individual had actually acquired skills delineated by government job descriptions, such as those promulgated by the U.S. Department of Labor (1991). Job titles vary from workplace to workplace. Even with a very careful inquiry regarding the individual's training, tools, materials, and methodologies used, considerable variation can exist from one worker's job responsibilities and experience to another's and have little or no match to government job descriptions.

Moreover, the disability assessment is the evaluation of a person's employability and not a simple tally of demonstrated skills that might be utilized at another level of function. Disability evaluation is a complete appreciation of an impaired individual's residual employability. To assume, for example, that a physically impaired longshoreman can only work with objects and things because that was his previously-demonstrated ability and interest profile is potentially fraught with error. In 1951, Eric Hoffer, a Seattle longshoreman, wrote *The True Believer*, acclaimed by many as a literary classic, and two decades later, Harvey Jackins, also a

longshoreman, created Re-evaluation Counseling, a peer counseling program that has been meaningful to millions throughout the world. Obviously, assessing these two longshoremen with TSA approaches would have fallen well short of accurately evaluating their vocational potentials.

The TSA method of work disability assessment also assumes that an individual was well-suited to prior employment, which may be untrue, and therefore not only presumes acquisition of work adjustment skills but also ignores potential vocational interests outside of previous modes of work (Dunn & Growick, 2000). Dunn and Cain (2001) note that often, a return to employment following the onset of impairment is dependent on extra-vocational circumstances and activities, and a disability assessment is likely to be incomplete and ineffective if these variables are not considered. Dunn and Cain also conclude that many elements of TSA are not relevant to determining vocational outcome, and furthermore, TSA does not appear to be as sensitive in identifying alternate vocations when the individual in question has greater physical effects of impairment.

Power (1991) concludes that when assessing an impaired individual's current level of functioning, the use of standardized tests, such as aptitude and achievement tests, is warranted because specific knowledge of how an impaired individual's abilities or competencies compare with those of non-impaired individuals may be necessary for rehabilitation planning to be relevant.

Review of Pertinent Documentation

The process of assessing occupational disability and residual employability can be greatly enhanced by the review of pertinent documents, which can provide a wealth of information not typically available to an evaluator. It is not possible to gather all the needed information for a disability assessment through a clinical interview and testing alone, particularly given the limited time allotted for those tasks. Through the review of relevant historical records, the evaluator often has better access to the social environment in which the individual has lived and worked. By reviewing employment records, and more specifically past performance reviews, for example, it is possible to obtain information about how an individual typically carried out work. In addition, disciplinary actions, workplace injury reports, and attendance logs can illuminate an individual's prior work record. Review of these documents as well as earnings records may help define how central a theme employment has been to this individual prior to the onset of impairment. Work records can reflect attendance patterns and general work adjustment issues that may influence an individual's behavioral responses to both assessment and rehabilitation interventions.

Documented medical information is vital in a disability assessment. Not simply materials related to the trauma that brought the examinee to assessment, but the examinee's health history in general may represent a reflection of his or her pre-injury lifestyle and well being. As mentioned earlier, some individuals can be unreliable historians or may intentionally distort or omit aspects of their health history that they feel will influence the outcome of a disability assessment. Reviewing documentation of medical treatment, both prior to and after an injury or illness, has the potential to provide a more complete body of information than some individuals may wish to provide in an interview. Reviewing medical records is especially important if the individual in question had been diagnosed with particular conditions that could have interfered with his or her ability to participate in work prior to the issue in question, such as advanced heart disease or diabetes.

In particular cases, academic records can provide relevant information about the individual's pre-morbid or baseline performance on formal testing. Classroom achievement can provide more information regarding motivation and pre-injury skill sets depending on how recent the records are. At times, academic records identify a starting point in a long history of absenteeism or disciplinary issues and may reflect pre-morbid adjustment. School records also have the potential to suggest post-injury avenues for someone who must consider alternate work following the onset of impairment.

Ultimately, the examinee's school, earnings, military, and employment records can yield important information about how that person was functioning from day to day before the trauma in question. Records provide a historical context to the disability assessment, a context that will be enhanced not only by the collection of accurate post-injury data but vis-à-vis the shared perspectives of other informed observers over the years prior to the onset of a disabling impairment.

Clinical Interview

The clinical interview is an essential element of a comprehensive disability assessment for several reasons. For one, it offers the examiner an opportunity to directly observe and calculate the impact of trauma on the individual and also gives the individual being evaluated the opportunity to share his or her personal experiences before and after sustaining an impairment. Breeding (2005) highlights the subjective nature of the impact of impairment and notes that information about an individual's lived experience is typically not available in documentation, testing, or general intake interviews. The clinical interview provides the examiner with the opportunity to ask an individual about a variety of areas in his or her life that may have been affected by impairment and also to gather information about the person's lifestyle.

Perhaps the most important reason to conduct a clinical interview, as opposed to simply reviewing records, is that more often than not, people are much different in person than they appear to be on paper. This point comes into sharp relief when one considers the many different professional perspectives that build a body of records regarding an individual's care. The type of qualitative information generated in a clinical interview helps to construct a context for the assessment and resultant findings by exploring and incorporating the unique features of the individual.

There are numerous texts devoted to specific techniques, styles, and goals of interviewing, so only select points will be briefly discussed here. Before conducting a clinical interview, the examiner should invest considerable time into practicing the required skills. Namely, data gathered from clinical interviews are greatly enhanced when the interviewer is a trained listener who recognizes and follows important leads instead of relying solely on the rather clerical nature of filling in a structured interview format. That is, though semi-structured, the interview should respond and adjust to the unique features each individual brings to an evaluation. This is also essential to building rapport with the person being interviewed and demonstrates that the examiner is listening. Berven (as cited in Bolton, 2001) suggests that during an interview, the communication of empathy, respect, and genuineness have the power to augment the relationship and encourage disclosure.

During the interview, the evaluator's main tool is that of questioning, so it is essential to practice phrasing questions tactfully though directly. At times, individuals are resistant to being interviewed, and the evaluator must effectively confront the person in order to generate quality information. One method is to simply point out the individual's behavior, such as appearing uncomfortable, and then engage the person in a dialogue directed to resolve the resistance and resume the interview. For example, it may be that the individual feels uncomfortable meeting new people and simply needs a few additional minutes to adjust to the task. In forensic settings, some individuals come to evaluations with the knowledge that the opposing legal party sent them and therefore have pre-existing notions of what the experience will entail. In any case, investing a few minutes to develop rapport with the individual and reduce resistance is worthwhile.

Another essential task of the clinical interviewer is to closely observe the person being interviewed. As mentioned, interviewing should not be considered a static clerical task but rather an opportunity to gather important qualitative data about a person. Observations might include noting the way an individual is dressed, monitoring body language or complaints of physical discomfort, surveying the person's emotional responses to different questions, and noting any obvious abnormalities in thinking or information processing. The evaluator may also want to observe the individual's level of social appropriateness and sophistication, as the ability to be socially aware and accurately interpret social cues is essential to successful functioning in all but a select few vocational settings. Goleman (2006) explores the topic of social intelligence in detail.

The examiner should begin an interview by clearly stating the purpose of the evaluation. This includes stating any limitations to confidentiality, the source of the referral, and who will have access to the findings of the evaluation. The assessor should be prepared to answer any questions that the individual may have before beginning and should take care to ensure that the person has understood the purposes of the evaluation as stated. CDMS-certified evaluators are ethically bound by The CDMS [Code of Professional Conduct](#) to communicate this information as an "Indirect service provision" (RPC 3.02):

Certificants who are employed by third parties as case consultants or expert witnesses and who engage in communication with the individual client shall fully disclose to the client and/or his or her designee their role and limits of their relationship. Communication includes all forms of written or oral interactions regardless of the type

of communication tool used. When there is no pretense or intent to provide disability management services directly to an individual client, and where there will be no communication, disclosure by the certificant is not required. When serving as case consultants or expert witnesses, certificants shall provide unbiased, objective opinions.

Case managers may also find themselves within a dual relationship and must follow their [Code of Professional Conduct](#) when doing so. Specifically, the CCMC Code states:

Dual relationships can exist between the Board-Certified Case Manager and the client, payor, employer, friend, relative, research study and/or other entities. All dual relationships and the nature of those relationships must be disclosed by describing the role and responsibilities of the Board-Certified Case Manager (CCM).

When conducting a clinical interview as part of a disability assessment, it is important to structure the interview around the areas of the individual's life that generally have an effect on his or her productivity. This includes exploring the person's perceptions of his or her own abilities or disabilities, the role of work in the person's life as part of a detailed job history, and pre-morbid and unrelated post-morbid health issues. Berven (as cited in Bolton, 2001) suggests conducting an interview with at least a semi-structured format so that other professionals assessing the individual are likely to reach similar conclusions, or at least to understand how the conclusions of an interview are determined. During the clinical interview, the evaluator should take into account how the person spends a typical day, which, in some cases, has the potential to highlight new roles the individual has taken on that may reduce the likelihood of a return to full productivity. An example of this is when a person becomes the primary caretaker of the family almost by default while the spouse works.

There are certain concrete areas of an individual's experience that should be taken into account during a clinical interview as well, such as recording a list of any medications taken, including the dosage and frequency of use. Some medications can affect the speed or clarity of cognitive processing, thus affecting performance both on standardized testing and on general measures of productivity. It is also helpful to ask individuals to describe his or her educational attainment, hobbies, and family. This information further builds the context for a disability assessment.

If possible, it is helpful to interview other people who are significant in the life of the individual who is the focus of the evaluation. Often, significant others can offer valuable perspectives on the individual both prior to and after injury and can also speak to the person's residual abilities, activities, and interests. The need to interview significant others becomes evident when a child is the subject of evaluation, as it is essential to interview parents. This can also be the case if the subject of the evaluation is unable to participate in interviewing due to his or her physical or mental limitations.

Standardized Testing

The final area of the three-part model proposed for conducting a disability assessment is the administration of standardized testing. A standardized test is a method of sampling behavior and describing it with categories or scores. Standardization is achieved if the procedures for administering the test are uniform from one examiner and setting to another. Standardized testing is frequently overlooked or is undertaken incompletely by many vocational disability examiners. As mentioned earlier, Meyer, Finn, Eyde, Kay, Moreland, Dies, et al. (2001) point out the many benefits of using standardized testing as an integral part of an assessment and even demonstrate that many published standardized measures are as reliable as medical tests like x-rays and CT scans. The use of standardized testing also provides unique information in that it can measure a person's aptitudes for retraining in a new vocation, for example. It is difficult to determine with any certainty a person's learning potentials based on self-report or historical documentation alone (Walker, 2004).

When designing a test battery to employ during a disability assessment, it is important to keep the concept of ecological validity in mind. That is, it is most logical to select measures that can provide information useful in the real world in which the person will be functioning. The CRCC [Code of Professional Ethics](#) for Rehabilitation Counselors instructs its certificants to assess the "appropriateness of instruments" (G.5.a.):

Rehabilitation counselors carefully consider the validity, reliability, psychometric limitations, and appropriateness of instruments when selecting tests for use in given situations or with particular clients.

There is not much value in administering a test of manual speed and dexterity to a person who has suffered a major injury to his or her dominant hand, unless attempting to demonstrate that, in fact, the hand is impaired. It would be more informative, not to mention a better use of time, to select measures for the person that speak to the basic skill sets required in areas where he or she may be able to resume work or social activities. The availability of various workplace accommodations, such as voice-activated dictation, highlight the need to measure the basic, underlying skills a person has even if the individual is impaired in using those skills via traditional methods. An individual who possesses skills associated with office work should not be considered excluded from that category of work simply because he or she lacks the capacity to type on a keyboard in a way that others do.

Typically, a test battery used for the purpose of disability assessment includes measures of achievement, intelligence, aptitudes, interests, personality dynamics, and, at times, measures of effort (Walker, 2004). Standardized testing should always include objective measures of personality or temperament as opposed to only including subjective self-report measures. The use of self-report measures raises the potential for biased responding and offers no means of objectively determining when biased responses are given. Although not directly related to vocational skill, personality measures offer valuable information about an individual's suitability for a certain vocation. Even if an individual had the requisite skills for a career in sales, the person would likely not be successful if extremely introverted or socially timid. Personality measures not only provide objective information on how suitable a person is for a specific job but also how likely the individual is to be satisfied with that particular work.

In addition to administering an objective measure of personality, a test battery for disability assessment should also include measures of achievement to include basic academic skills, such as reading comprehension and mathematics. It is advisable to administer achievement testing early in a battery to ensure that later measures are appropriate for the individual's mathematic and reading abilities. There are also a variety of standardized measures that assess a range of work aptitudes that may be helpful, such as the Career Ability Placement Survey, the Differential Aptitude Test, and the Employee Aptitude Survey.

When conducting disability assessment, it is important to incorporate the individual's personal and vocational interests, as an examinee should not be expected to undertake an activity that he or she finds repellent and, in fact, it is likely that the individual would not sustain unappealing activity even if able to. Evaluators should devote special attention to the interest inventory they employ in order to ensure that it adequately covers a large range of occupational interests, including more modern vocations such as computer-related activities if possible.

Another aspect of the test battery for disability assessment is testing designed to measure effort. There are several available measures for assessing the validity of an individual's effort and response style during testing that are informative to the process, as sometimes individuals purposefully distort performance, particularly when secondary gain dynamics are present. Lynch (2004) offers some suggestions for identifying behaviors that indicate when validity testing is warranted, such as large discrepancies between subjective complaints and objective findings or a lack of cooperation during assessment efforts.

As with interviewing, test administration is a clinical process rather than a clerical task. The test administrator should make careful observations throughout the administration of standardized testing in order to gather qualitative data about how the person approached and organized each task. These observations should also include the individual's emotional response to particular activities, willingness to follow instructions, affect, and any signs of thought disorder. The examiner must be prepared to answer questions about not only the purpose of testing but also specific questions about each test and, therefore, must be quite familiar with the measures. Frequently, it will fall to the examiner to help reduce anxiety associated with taking tests.

It is of great importance that the test battery and the examiner are responsive to the strengths, weaknesses, and needs of the individual being assessed. As data are gathered during the interview and test administration, it is the examiner's responsibility to integrate the information and adjust the assessment so that the most useful information is being collected.

The goal of medical and vocational rehabilitation is to maximize an individual's functioning following trauma and the onset of impairment and, when possible, restore that person's productivity. The comprehensive assessment initiates the disability evaluation and vocational rehabilitation processes, both of which are enhanced when practitioners fully appreciate the difference between impairment and disability and go about employing a tripartite analysis of occupational disability and post-injury employability.

Summary

The primary objective of an occupational disability evaluation following trauma is to identify the impaired individual's vocational potential through a systematic assessment process. Through that process, the vocational assessment professional is able to observe, measure, and document occupationally relevant behaviors to determine an individual's potential to successfully perform particular forms of work.

A portion of the data gathering done in vocational evaluation is based on documentation. Relevant documentation regarding an individual's work history, earnings record, and educational background may be quite pertinent to the assessment data gathered. In addition, vocational rehabilitation professionals rely on the exertional or mental recommendations of physicians and therapists with respect to an individual's functional capacities for work. A significant issue affecting the vocational evaluation process is the basic difference between the concept of "impairment" and "disability." Defining impairment is, of course, within the scope of the physician's expertise, whereas determining disability is not (Cocchiarella & Andersson, 2001). In terms of a work disability, the examiner making the assessment needs to understand the physical and mental requirements of the specific job tasks to decide whether the impairment will, with or without a work accommodation, impact the injured worker's ability to carry out that work. This expertise on occupational capacity belongs to the qualified vocational professional (Sleister, 2000).

Through well-planned standardized testing, a complete picture of an individual's actual abilities and work potentials can be obtained. Without comprehensive test data, determining an appropriate occupational match for an individual could be incomplete and perhaps speculative.

There are several components that should be considered when developing criteria for vocational testing, including academic achievement levels, vocational aptitudes, personality characteristics, and occupational interests. Through gathering data in each of these areas, along with understanding the history of the injured worker, one would be well equipped to successfully match a person to a particular job.

Comprehensive vocational assessment can be accomplished by utilizing the following methods (as cited in Bolton, 2001):

- reviewing various documentation, including medical, employment, and wage data
- utilizing direct observation
- obtaining physician input
- conducting a client interview
- administering standardized testing
- assessing and inventorying worker traits

However, despite the importance that standardized testing might play in accurately assessing an individual's characteristics and abilities, one of the most frequently asked question regarding vocational evaluations is, "What is the purpose of vocational testing?" Many times, persons requesting a vocational assessment question the efficacy of administering a battery of tests. In general, it is assumed that a person's ability to perform a job can be determined by nothing more than examining what type of work that individual performed in the past and understanding the medically-determined restrictions or limitations in functional capacity. In fact, to the well-trained vocational disability evaluation professional, work experience plays only a part in assessing a person's ability to function effectively in a particular job. Because of the wide variations in job descriptions and job demands, the work history alone does not ensure that the individual being evaluated has acquired specific skills. Moreover, it has been the experience of well-trained vocational evaluators that individuals with particular work histories can possess dramatically different skill sets and worker characteristics.

One could simply perform a “transferability of skills” analysis on the basis of a person’s work history (Dunn & Growick, 2000). However, to repeat the illustration, one cannot assume that the longshoreman is simply interested in objects and things because he has manually and mechanically unloaded ships and nothing more in his employment. What is more, one cannot conclude that a longshoreman possesses no more than the mental abilities of the “typical” longshoreman.

Conclusion

The vocational disability assessment process is of substantial concern to rehabilitation professionals, employers, and society in general. In this chapter, we provide specific definitions of vocational disability assessment and its key concepts, look at relevant economic impact data, and continue by discussing the explicit methods used in disability assessment to evaluate the work potentials of individuals who are impaired physically and/or mentally. After defining trauma, we make the crucial distinction between “impairment” and “disability.” We describe the vital role of the functional capacity evaluation in the assessment process.

Vocational disability assessment is discussed in depth in terms of practical applications, the elements of an assessment, and the “three-part model” of assessment. The three-part model, the heart of the assessment process, identifies the essential steps as:

- a document review
- the clinical interview
- standardized testing

The essence of this chapter is that the goal of vocational assessment is to develop a precise picture of the individual’s capacity to function occupationally so that additional decisions regarding the examinee’s potentials and productivity can be made.

References

- American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (4th ed. – text revision). Washington, D.C.: American Psychiatric Publishing.
- Anthony, W. A., & Jansen, M. A. (1984). Predicting the vocational capacity of the chronically mentally ill. *American Psychologist*, 39(5), 537-544.
- Berkowitz, M., Chelius, J., & Dean, D. (1992). The full cost of disability: Phase I. Unpublished manuscript.
- Berkowitz, M., Chelius, J., & O’Leary, P. (1994). The full cost of disability: Phase II. Unpublished manuscript.
- Berkowitz, M., & O’Leary, P. (1997). The full cost of disability: Phase III. Unpublished manuscript.
- Berven, N. L. (2001). Assessment interviewing. In B. F. Bolton (Ed.), *Handbook of measurement and evaluation in rehabilitation* (pp. 197-213). Austin, TX: Pro-ed.
- Boscarino, J.A. (2005). Post-traumatic stress disorder and mortality among U.S. army veterans 30 years after military service. *Annals of Epidemiology*, 16, 1-9.
- Breeding, R. R. (2005). Vocational rehabilitation and sudden onset disability: Advancing proprietary consumer involvement through improved vocational assessment. *Journal of Vocational Rehabilitation*, 22, 131-141.
- Classen, C. & Koopman, C. (1993). Trauma and dissociation. *Bulletin of the Menninger Clinic*, 57(2), 178-194.
- Cocchiarella, L., & Andersson, G. B. J. (Eds.). (2001). *Guides to the evaluation of permanent impairment*. Fifth Edition. Chicago: AMA Press.
- Courtois, C.A. (2004). Complex trauma, complex reactions: Assessment and treatment. *Psychotherapy: Theory, Research, Practice, Training*, 41(4), 412-425.
- Cushman, L. A., & Scherer, M. J. (Eds.). (1995). *Psychological assessment in medical rehabilitation*. Washington, DC: American Psychological Association.
- Dunn, P. L., & Growick, B. S. (2000). Transferable skills analysis in vocational rehabilitation: historical foundations, current status, and future trends. *Journal of Vocational Rehabilitation*, 14, 79-87.
- Dunn, P., & Cain, H.M. (2001) Comparisons of pre-injury characteristics of injured workers across levels of post-injury occupational congruence: Potential applications for Transferable Skills Analysis. *Journal of Forensic Vocational Analysis*, 4, 13-20.
- Esposito, K., & Mellman, T. (2005). Stress disorder after traumatic injury. *The American Journal of Psychiatry*, 162, 629-630.

- Finkelstein, E., Corso, P., & Miller, T. (2006). *The incidence and economic burden of injuries in the United States*. New York: Oxford University Press.
- Goleman, D. (2006). *Social Intelligence: The New Science of Human Relationships*. New York, NY: Bantam Books.
- Growick, B. (Ed.). (2004). *Journal of Forensic Vocational Analysis*, 7(2).
- Grunert, B. K., Devine, C. A., Matloub, H. S., Sanger, J. R., Yousef, N. J., Anderson, R. C., et al. (1992). Psychological adjustment following work-related hand injury: 18-month follow-up. *Annals of Plastic Surgery*, 29, 537-542.
- Hammond, K. R. (1998). Ecological validity: Then and now. Retrieved on October 1, 2007, from <http://www.brunswik.org/notes/essay2.html>.
- Hoffer, E. (1951). *The True Believer*. New York: Harper and Row.
- Holmes, E. B. (2007). Impairment rating and disability determination. Retrieved on September 23, 2007, from <http://www.emedicine.com/pmr/topic170.htm>.
- King, P. M. (2004). Analysis of the reliability and validity supporting functional capacity evaluations. *Journal of Forensic Vocational Analysis*, 7, 75-82.
- Lynch, W. J. (2004). Determination of effort level, exaggeration, and malingering in neurocognitive assessment. *Journal of Head Trauma Rehabilitation*, 19(3), 277-283.
- Meyer, G. J., Finn, S. E., Eyde, L. D., Kay, G. G., Moreland, K. L., & Dies, R. R., et al. (2001). Psychological testing and psychological assessment. *American Psychologist*, 56(2), 128-165.
- Moos, R. H., Nichol, A. C., & Moos, B. S. (2002). Global assessment of functioning ratings and the allocation and outcomes of mental health services. *Psychiatric Services*, 53(6), 730-737.
- National Institute on Disability and Rehabilitation Research. (1992). Human measurement in rehabilitation. Retrieved on October 1, 2007, from <http://www.empowermentzone.com/measure.txt>.
- National Safety Council. (2007). Report on injuries in America. Retrieved on October 1, 2007, from http://www.nsc.org/library/report_table_1.htm.
- Power, P. W. (1991). *A guide to vocational assessment*. Second Edition. Austin, Texas: PRO-ED, Inc.
- Randolph, D. C., Nguyen, T. H., & Osborne, P. (2005). The functional capacity evaluation: Is it helpful? In Talmage, J. B., & Melhorn, J. M. (Eds.), *A physician's guide to return to work*. United States: American Medical Association.
- Scheer, S. J. (1991). *Medical perspectives in vocational assessment of impaired workers*. Gaithersburg, MD: Aspen Publishers, Inc.
- Sleister, S. L. (2000). Separating the wheat from the chaff: The role of the vocational expert in forensic vocational rehabilitation. *Journal of Vocational Rehabilitation*, 14, 119-129.
- Social Security Administration. (1978). SSR 83-14: Titles II and XVI: Capability to do other work – the medical-vocational rules as a framework for evaluating a combination of exertional and nonexertional impairments. Retrieved on September 29, 2007, from http://www.ssa.gov/OP_Home/rulings/di/02/SSR83-14-di-02.html.
- Social Security Administration (2005). Disability evaluation under social security – mental disorders – adult. Retrieved on October 1, 2007, from <http://www.socialsecurity.gov/disability/professionals/bluebook/12.00-MentalDisorders-Adult.htm>
- Talmage, J. B., & Melhorn, J. M. (Eds.). (2005). *A physician's guide to return to work*. United States: American Medical Association.
- Thomas, S. W. (1999). Vocational evaluation in the 21st century: Diversification and independence. *Journal of Rehabilitation*, 65(1), 12-15.
- U.S. Bureau of the Census. (2006). Workers' compensation payments: 1970 to 2003. Retrieved on October 1, 2007, from <http://www.census.gov/compendia/statab/2007/tables/07s0547.xls>.
- U.S. Department of Justice. (2007). Americans with disabilities act. Retrieved on October 1, 2007, from <http://www.usdoj.gov/crt/ada/pubs/ada.htm>.
- U.S. Department of Labor. (1991). *Dictionary of Occupational Titles – Volume II, Fourth Edition, Revised 1991*. Washington, DC: U.S. Government Printing Office.
- U.S. Department of Labor. (2005). *Occupational Outlook Handbook*. Washington, DC: Labor Dept., Labor Statistics Bureau.
- Van Fleet, E. L., & Bates, R. (1995). Ergonomics. *Facts & Resources*, 1(1), 1-2.
- VandenBos, G. R. (Ed.). (2007). *APA dictionary of psychology*. Washington, D.C.: American Psychological Association.
- Walker, J. M. (1993). *The difference between disability and impairment: A distinction worth making*. *Journal of Occupational Rehabilitation*, 3(3), 167-172.

- Walker, J. M. (2004, June 3-4). Forensic Vocational Assessments. Paper presented at the 2004 Pennsylvania & New Jersey I.A.R.P. Conference.
- Walker, J. M. (2007). *Application of the FCE by vocational experts*. Manuscript submitted for publication.
- Walker, J. M. & Heffner, F. (2006). Disability, dysfunction, or deception: Explaining acquired occupational disability. *The Forensic Examiner*, 15(1), 12-23.
- Weed, R. O., & Field, T. F. (2001). *Rehabilitation consultant's handbook – revised*. Athens, GA: Elliott & Fitzpatrick, Inc.
- World Health Organization. (2007). *Meeting of the international advisory group for the revision of ICD-10 mental and behavioral disorders*. Geneva, Switzerland.
- World Health Organization. (2007). Retrieved on October 1, 2007, from <http://www.who.int/topics/disabilities/en/>.