THE ROLE OF COUNSELING THEORY IN THE SUCCESS OF VOCATIONAL REHABILITATION OUTCOME

By

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ABSTRACT

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Individuals with disabilities are the largest minority group in the world, with one out of every ten people reporting a disability. These individuals face wage discrimination, limited opportunity for career advancement, and an unemployment rate almost three times that for people with no disability. This high rate of unemployment presents a serious problem because work affects social status, life fulfillment, and psychological well-being. Each state offers vocational rehabilitation services for their unemployed residents with disabilities, and an integral part of these services is vocational rehabilitation counseling. While the focus of rehabilitation counseling is vocational, it also includes behavioral, social, and psychological aspects. Researchers believe that the framework for rehabilitation counseling is counseling theory, and graduate programs and rehabilitation counseling employers require training in this area, yet little empirical research has examined the role of counseling theory in the success of vocational rehabilitation. This study examined whether use of counseling theory is associated with the likelihood of rehabilitation clients' eventual employment. Counselors' use of counseling theory and counseling theory's hypothesized role as a framework for counseling were assessed with a self-report survey. Therapeutic efficacy was measured as the ratio of successful employment outcomes in 2006 for the clients within each

counselor's caseload. Counseling theory and its organizing role in rehabilitation were shown to have no connection with vocational outcome, although the use of counseling theory was related to counseling organization. Results of this study will be shared with the Department of Rehabilitation. Implications for counselor training are discussed.

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INTRODUCTION

Individuals with disabilities are the largest minority group in the world. In fact, about 10% of the world's population live with at least one disability (United Nations, 2006), while 16% of California's residents report a disability (U.S. Census Bureau, 2007a). These California residents experience numerous employment difficulties. Once hired, individuals with disabilities experience less favorable attitudes from employers than do members of other minority groups, including employees who belong to minority racial groups and individuals who have been incarcerated (Cohen & Tronto, 1997). Workers with disabilities also face wage discrimination (Johnson & Lambrinos, 1985), fewer opportunities for career advancement, and reduced performance expectations from their supervisors (Braddock & Bachelder, 1994). More than 20% of employees with disabilities work the least desirable shifts: evening, night, and rotating shifts. Presser and Altman (2002) found that individuals without disabilities earn as much as $4.20 more per hour than do employees with disabilities. Employees with disabilities earn 30% less than employees who do not have disabilities (Braddock & Bachelder, 1994), and male employees with the most severe disabilities earn 36% less than men with no disabilities (Johnson & Lambrinos, 1985). To make matters worse, women with disabilities earn even less (Bowe, 1992).

Unfortunately, many individuals with disabilities do not have the opportunity to earn any wages. More individuals with disabilities want to work than are actually employed (Kirchner, Johnson, & Harkins, 1997). This may be due to the fact that the presence of a disability reduces an individual's ability to sell herself or himself in the labor market (Braddock & Bachelder, 1994).

This high rate of unemployment is a serious problem because work does not affect a person only financially, but socially and psychologically as well. Employment has both intrinsic and instrumental value for a human being. Work not only provides sustenance, but it also impacts psychological health, offers meaning and structure, and provides an outlet for an individual's talents (Quick, Murphy, Hurrell, & Orman, 1992). Additionally, an individual's social status and self-concept are influenced by employment (Szymanski & Hershenson, 2003). Mount, Johnstone, White, and Sherman (2005) note that the lack of gainful employment is related to decreased life fulfillment. Unemployed adults of every age report twice as much mental distress as do employed adults of the corresponding age range (Clark & Oswald, 1994).

Individuals with disabilities who want to work can get assistance from vocational rehabilitation agencies. (The best term by which to refer to individuals who receive services from vocational rehabilitation agencies has been disputed, with some advocates preferring the word "client," and others suggesting that "consumer" is a better choice. The California Code of Regulations (Office of Administrative Law, 2007) uses the term "client" exclusively, and the present study will follow the Code's naming convention.)

Rehabilitation agencies naturally strive for successful vocational rehabilitation; for one thing, they know that successful rehabilitation is a meaningful marker of client satisfaction and economic health. Hayward and Schmidt-Davis (2003b) found that 33.1% of former rehabilitation clients whose rehabilitation is unsuccessful live in poverty two years after termination compared to only 18.6% of clients whose rehabilitation is successful. At application, the average client's weekly earnings are $27; at closure, successfully rehabilitated clients' average weekly earnings are $326 (Agbunag, 2006). The researchers also found that after 2 years, clients who successfully complete the rehabilitation program are more likely to receive insurance, leave, and retirement benefits than are their unsuccessful peers. A third finding was that, after 2 years, significantly more clients whose cases are closed unsuccessfully are not satisfied with their earnings, fringe benefits, integration in the workplace, opportunity for advancement, or employer support. After two years, an individual who has not been successfully rehabilitated experiences significantly less job satisfaction, as measured by satisfaction with earnings, fringe benefits, integration in the workplace, opportunity for advancement, and employer support (Hayward & Schmidt-Davis, 2003b). Because successful rehabilitation and employment are associated with increased wages, job satisfaction, and life fulfillment, increasing successful rehabilitation outcomes is a primary interest of vocational rehabilitation agencies.

Department of Rehabilitation

In order to assist the nearly 60% of Americans with disabilities who are unemployed (Steinmetz, 2006), states began creating vocational rehabilitation programs. Eight states were financing their own programs by 1920 (Patterson, Szymanski, & Parker, 2005), when the Smith-Fess Act (PL 66-236) was passed (Growick, 2000). Within 18 months, the state of California started providing vocational guidance, training, and other services to the public, and by the end of 2 years, 34 states had created programs to serve people with disabilities. Currently, every state in the United States has at least one vocational rehabilitation program. By the 1950s, the State-Federal Vocational Rehabilitation Program had been created (Patterson et al., 2005), and on October 1, 1963, the California Department of Rehabilitation (DOR) was established, authorized by Chapter 1747 of the Statutes of 1963. Sections 19000 – 19856 of the California Welfare and Institutions Code detail DOR's purpose and duties (California Department of Rehabilitation, 2007a). The Department of Rehabilitation aims not only to help an individual with at least one disability obtain and maintain employment "in an integrated setting, consistent with his or her unique strengths, resources, priorities, concerns, abilities, capabilities, interests, and informed choice" (Department of Rehabilitation, 2001, p. iv), but also to increase a person's capacity for independent living. The California Department of Rehabilitation (2007b) declares that its mission is to "provide services and advocacy resulting in employment, independent living and equality for

individuals with disabilities." Some of the goals DOR has set in order to effect its mission statement are to "increase the effectiveness and efficiency of vocational rehabilitation services delivery, improve Department of Rehabilitation infrastructure, improve work environment, [and] increase equality for persons with disabilities through systems change." The final goal is to "increase the quality and quantity of employment outcomes."

Currently, DOR operates under the auspices of the Health and Human Services Agency. The Department of Rehabilitation includes six main divisions: the Director's Office, Independent Living and External Affairs, Planning and Systems Change, Specialized Services: Blind and Visually Impaired and Deaf and Hard of Hearing, Administrative Services, and Employment Preparation Services. Employment Preparation Services comprises South and North Central regions. Districts within the North Central region include: the Northern Sierra District, Greater East Bay District, San Francisco District, San Jose District, San Joaquin Valley District, Santa Barbara District, and the Redwood Empire District. Within Employment Preparation Services, 105 field offices serve rehabilitation clients. In total, the Department of Rehabilitation employs almost 2,000 workers (California Department of Rehabilitation, 2007a), who served approximately 74,000 clients in California during the 2005/2006 fiscal year (Agbunag, 2006).

Demographic statistics for rehabilitation clients in California differ slightly from statistics for the greater California population. While fewer than half of California's

residents are male (U.S. Census Bureau, 2002), more than half of rehabilitation clients are (Chan, Wong, Rosenthal, Kundu, & Dutta, 2005). Although 77% of individuals in California consider themselves White (U.S. Census Bureau, 2007a), a 2005 study found that only 68% of rehabilitation clients are European American. The same study found that 32.2% of clients had psychiatric disabilities, 20.4% orthopedic, 19.3% mental, 11.4% chronic medical, and 10.4% had sensory disabilities (Rosenthal, Chan, Wong, Kundu, & Dutta, 2005). A study by the California State Auditor (2000) determined that 80.4% of the Department's clients were categorized as being most significantly disabled, or having the most numerous impediments to employment.

The rehabilitation process

Each of the 105 field offices employs counselors who meet with clients to assess the clients' needs, develop and write plans to meet those needs, and arrange for the services that can fill those needs. Before a counselor can write a plan or provide services, however, the counselor must obtain documentation of the applicant's impairment. The impairment can be physiological, anatomical, emotional, cognitive, or even cosmetically disfiguring, but it must create an impediment to preparing for, obtaining, performing, or maintaining a position appropriate to the person's skills and capabilities (Department of Rehabilitation, 2001). The Department of Rehabilitation lists the following impairment classifications in its Field Computer System (Department of Rehabilitation, n.d.):

- Blindness
- Other visual impairments
- Deafness (primary communication visual)

- Deafness (primary communication auditory)
- Hearing loss (primary communication visual)
- Hearing loss (primary communication auditory)
- Other hearing impairments (tinnitus, Ménière's disease, etc.)
- Deaf-blindness
- Communicative impairments (expressive/receptive)
- Mobility orthopedic/neurological impairments
- Manipulation/dexterity orthopedic/neurological impairments
- Both mobility and manipulation /dexterity orthopedic/neurological impairments
- Other orthopedic impairments (e.g., limited range of motion)
- Respiratory impairments
- General physical debilitation (fatigue, weakness, pain, etc.)
- Other physical impairments (not listed above)
- Cognitive (involving learning, thinking, and processing information)
- Psychosocial (interpersonal and behavior impairments), and
- Other mental impairments.

Once a counselor has determined whether a client has at least one impairment that presents an impediment to employment, the counselor must determine whether the individual is eligible for DOR services, and how severe the person's disability is. On September 1, 1995, the Department of Rehabilitation implemented an order-of-selection process that allows applicants with the most severe disabilities to receive services before applicants with less severe disabilities. As part of this process, DOR groups clients into three severity categories: most severely disabled (also referred to as most significantly disabled), severely disabled (also referred to as significantly disabled), and disabled. Only applicants in the severely disabled and most severely disabled categories have been able to receive services since 1995 due to limited funding, leaving those in the disabled category unable to receive rehabilitation services. However, clients in the disabled

category who were already receiving services continue to receive them (California State Auditor, 2000).

Once a Department of Rehabilitation counselor has determined the type and extent of the client's disability, the counselor may provide rehabilitation services from one or more of the 22 categories as listed on the DOR Field Computer System (Department of Rehabilitation, n.d.):

- Assessment
- Vocational rehabilitation counseling and guidance
- College or university training
- On-the-job training
- Job readiness training
- Miscellaneous training
- Job placement assistance
- Transportation services
- Rehabilitation technology
- Interpreter services
- Technical assistance
- Diagnosis and treatment of impairment
- Occupational or vocational training
- Academic remedial or literacy training
- Disability related skills training
- Job search assistance
- On-the-job supports
- Maintenance
- Reader services
- Personal attendant services
- Information and referral services, and
- Other services.

Service limitations

Unfortunately, as mentioned previously, not every individual receives services, partly due to cost constraints, including administrative costs (12.9%), service

costs (counseling, guidance, and placement; 35.2%), purchased services from other vendors (including vocational training and education; 47.7%), and other expenses (4.2%). DOR receives approximately $348.5 million in funding (Department of Rehabilitation, 2001) and spends approximately $336 million (Agbunag, 2006). Individual cases can cost DOR as much as $50,000 per person. In 2000, the California State Auditor (2000) found that other states were spending 19% less per person on average than was the California Department of Rehabilitation.

Some of California's rehabilitation expenses may be related to the 1992 amendments to the 1973 Rehabilitation Act. These amendments introduced the notion of presumptive eligibility (O'Day, 1996). Title 34 of the Code of Federal Regulations explains that counselors must presume eligibility for applicants who receive Social Security (and for their beneficiaries). Counselors must also presume that an eligible client can benefit from DOR services, and that the client's disability is significant enough to warrant services (National Archives and Records Administration, 2007a). Subsequent to the 1992 amendments, many applicants who would previously have been determined ineligible, including those whose services may be more expensive and time-consuming, now generally receive services or extended evaluation. Additionally, all clients with the most severe disabilities must be served before any other applicants can receive services. Due to these facts, a higher ratio of clients with more severe disabilities is now served than was served prior to 1992, and rehabilitation services are generally costlier for these clients than for those with less severe disabilities. The Amendments also stipulate that the

Department of Rehabilitation coordinate with other local agencies that provide services to persons with disabilities, and such coordination is particularly costly in California. Additionally, the Amendments state that DOR must allow clients to make informed choices about all aspects of the rehabilitation process, thereby potentially raising the cost of rehabilitation as counselors attempt to incorporate the clients' wishes. Because the 1992 Amendments emphasize career goals, rather than entry-level jobs, rehabilitation expenses are further increased (California State Auditor, 2000). For example, DOR may need to fund the client's college education if he or she chooses a career goal that requires this training.

Funding is not the only limitation the Department of Rehabilitation must consider. A counselor's available time is another precious commodity. Following implementation of the Amendments, the average time a counselor spends per case has increased from 15 months to nearly two and one half years, possibly due to the increased number of clients in the most significantly disabled category. Unfortunately, while rehabilitation costs increased, the number of DOR's clients successfully accomplishing their vocational goals decreased by almost fifty percent. On the other hand, since 1992, the ratio of accepted applicants has actually risen, from approximately 57% to between 83% and 92% (California State Auditor, 2000). Given that each client consumes a portion of DOR's finite funding and counselor availability, ensuring that these resources are used to develop successful employment outcomes is a primary focus for the Department of Rehabilitation.

Redwood Empire District

Within California, the Redwood Empire district of the Department of Rehabilitation is noteworthy because, as of 2000, it had the second highest average cumulative costs per case, but only the tenth highest ratio of successful outcomes (California State Auditor, 2000). Part of the reason the Redwood Empire district has higher costs and lower successful outcomes may be due to its largely rural nature. According to the U.S. Census Bureau (2004), six out of nine of the counties within the Redwood Empire district (Del Norte, Humboldt, Lake, Mendocino, Siskiyou, and Tehama counties) are non-metropolitan. Shasta, Sonoma, and Napa counties are the only metropolitan counties within the Redwood Empire district.

Every county within the Redwood Empire district has a higher ratio of residents with disabilities than does the state of California overall. Lake County has an unusually high proportion, with nearly 25% of Lake County dwellers reporting at least one disability. About 15.6% of individuals in Lake County live in poverty (U.S. Census Bureau, 2007b.). During 2005-2006, the Lake County office of the Department of Rehabilitation had 102 “closures” (rehabilitation cases closed), with 26.5% successful rehabilitations (Agbunag, 2006).

As many as 19.3% of Del Norte County dwellers have a disability (U.S. Census Bureau, 2007c), compared to about 16% statewide (U.S. Census Bureau, 2007a). Additionally, 19.2% of individuals live below the poverty line in Del Norte County (U.S.

Census Bureau, 2007c). During 2005-2006, the field office in Del Norte County closed 77 cases, with 27.3% of those cases closed successfully (Agbunag, 2006).

In Humboldt County, approximately 19.6% of the county's residents have a disability, and 15.4% of individuals in Humboldt County live below the poverty line (U.S. Census Bureau, 2007d). During the 2005-2006 fiscal year, the field office of the Department of Rehabilitation in Humboldt County had 376 closures, with 29.3% successful employment outcomes (Agbunag, 2006).

Among Mendocino County residents at least 5 years of age, 20.9% have one or more disabilities. Almost 14.4% of residents live below the poverty line (U.S. Census Bureau, 2007e). The Mendocino County field office closed 213 cases during 2005-2006, with 48.8% closed successfully (Agbunag, 2006).

Among those who dwell in Napa County, 16.1% report at least one disability. Approximately 7.8% of individuals in this county live in poverty (U.S. Census Bureau, 2007f). Of all DOR clients in Napa County, 343 had their cases closed in 2005-2006, with approximately 30% of cases closed successfully (Agbunag, 2006).

Shasta is another county that falls within the purview of the Redwood Empire district. About 19.3% of the population 5 years or older has a disability, and approximately 13.4% of individuals in Shasta County live below the poverty level (U.S. Census Bureau, 2007g). During 2005-2006, the Shasta County office of the Department of Rehabilitation closed 27.2% of their 368 case closures successfully (Agbunag, 2006).

Another county within the Redwood Empire district is Siskiyou County. Of inhabitants 5 years and older, 20.3% have a disability. Like most of the other counties in this district, Siskiyou County has a high poverty rate, with 15.1% of individuals living below the poverty level (U.S. Census Bureau, 2007h). During 2005-2006, 110 of the clients living in Siskiyou County had their cases closed, with 23.6% closed in successful employment (Agbunag, 2006).

More than 16% of individuals living in Sonoma County have a disability, and 8.4% of people in this county live below the poverty line (U.S. Census Bureau, 2007i). During 2005-2006, 787 individuals from Sonoma County had their cases closed. Approximately 40.5% of these were successful (Agbunag, 2006).

Finally, of Tehama County residents, 19.4% have a disability, and 14.5% of individuals in Tehama County live in poverty (U.S. Census Bureau, 2007j). During 2005-2006, only 28.7% out of 108 cases were closed successfully (Agbunag, 2006).

Rural rehabilitation

As mentioned previously, six out of nine counties within the Redwood Empire district are rural. Rural and urban environments offer different sets of opportunities and challenges to clients and counselors. The disability rate is higher in rural areas (Donovan & Jones, 1994; Kirchner, Johnson, & Harkins, 1997), where one third of the individuals in the United States live. Also, the ratio of employed residents is lower (Donovan & Jones, 1994), perhaps due to the presence of more residents with disabilities. A disproportionate rate of disability exists in rural communities for several possible reasons.

First, in rural regions, available jobs tend to be more physically dangerous, creating higher injury rates. Second, people with higher education tend to leave rural areas for the city, so a larger proportion of individuals with less education remains in rural areas to work at the dangerous occupations. A third reason for the higher percentage of people with disabilities in rural areas is that the proportion of elderly individuals is higher in rural areas, and age is associated with disability rate. A fourth cause of increased disability is that medical services that may reduce likelihood of disability are less available in rural areas, and the health care that is available is lower quality (Donovan & Jones, 1994; Enders & Seekins, 1998; Walden, Roy, & O'Day, 1994).

More individuals in rural areas have disabilities, and providing these individuals with rehabilitation services can be challenging. Individuals living in rural areas experience more trouble obtaining and maintaining employment, and rural counselors report greater difficulty with finding plentiful job openings for their clients than do counselors in urban areas (Arnold & Seekins, 1997; Kirchner, Johnson, & Harkins, 1997). Rural counselors face reduced availability of disability programs and services (Donovan & Jones, 1994), educational and training programs, and assistive technology. Additionally, services for certain disabilities may be less well-coordinated in rural areas than in other geographic regions (Rocky Mountain Regional Brain Injury Center, 1993). Rural vocational rehabilitation also suffers from a paucity of work evaluation opportunities, job coaches, and on-the-job training options (Arnold & Seekins, 1998;

Walden et al., 1994). Another rural concern is that available human services may be lower quality than are services in metropolitan regions (Donovan & Jones, 1994).

Because rural caseloads tend to be scattered in larger areas, rehabilitation counselors in rural regions sometimes find it difficult to provide services to their clients due to the sheer size of the counselors' territories. In rural regions, clients live significantly farther from their vocational rehabilitation offices than clients do in urban areas, with only about half of rural clients living within 26 miles of a rehabilitation office, and some clients living more than 180 miles away. In contrast, 84% of clients in urban areas live less than 26 miles from an office. Rural service providers, too, are often located at a distance, making rural counselors' jobs more difficult (Arnold & Seekins, 1997; Walden et al., 1994). Although the size of the territory is generally increased, the availability of transportation services usually is not (Donovan & Jones, 1994). Counselors in rural areas are less satisfied than urban counselors are with the availability of regional transportation options (Arnold & Seekins, 1997), and what services are available are lower quality (Donovan & Jones, 1994). Federal funding for transportation is limited, and transportation for individuals with disabilities who live in rural areas is generally restricted, costly, or even non-existent (Donovan & Jones, 1994; Walden et al., 1994).

The situation is not entirely bleak for rural rehabilitation counseling, however. Small towns have natural support systems that are unavailable in larger cities. Rural citizens may better tolerate behaviors that would be considered inappropriate in urban

areas, contributing to a better likelihood of "competitive employment" (gainful employment where the individual is integrated with other workers who do not have disabilities) for clients with certain disabilities (Rocky Mountain Regional Brain Injury Center, 1993). Also, networking opportunities in rural areas may make up for other deficits, enabling counselors to assist clients in reaching successful outcomes (Arnold & Seekins, 1997). The limitations found in rural areas may actually inspire innovative improvements (Donovan & Jones, 1994).

Given the differences between rural and urban rehabilitation, it is surprising that little research has been done with rehabilitation clients who live in rural areas. When research has been conducted, researchers have frequently used data from the Longitudinal Study of the Vocational Rehabilitation Services Program (LSVRSP), which, while helpful, has limitations when used for research on subpopulations (Capella, 2005) such as rural communities. The LSVRSP was designed to address national rehabilitation rather than rehabilitation on a community or statewide level. The LSVRSP information is also limited because all data was collected between 1995 and 1999; therefore, the LSVRSP data does not reflect recent changes in rehabilitation (Hayward & Schmidt-Davis, 2005). Consequently, this study will utilize data gathered directly from the Department of Rehabilitation database, focusing on the largely rural Redwood Empire district of the California Department of Rehabilitation.

Vocational Rehabilitation Counseling

Vocational rehabilitation counseling is not the same thing as job placement, job development, or even case management. While the focus is vocational, rehabilitation counseling also includes behavioral, social, and psychological aspects (Commission on Rehabilitation Counselor Certification, 2007a; Patterson et al., 2005). Rehabilitation counseling is a "comprehensive sequence of services, mutually planned by the client and rehabilitation counselor, to maximize employability, independence, integration, and participation of people with disabilities in the workplace and community" (Patterson et al., 2005, p. 3). The key difference separating rehabilitation counseling from other types of counseling is the rehabilitation counselor's knowledge of disabilities and related concerns. Similar to other forms of counseling, the purpose of rehabilitation counseling is to help clients accomplish their goals through communication and facilitation of growth, but rehabilitation counselors ordinarily focus on achieving these goals in an integrated employment setting. The Commission on Rehabilitation Counselor Certification (2007a) states that rehabilitation counseling is a specialization within the larger field of rehabilitation, and that counseling forms the heart of the profession.

Patterson et al. (2005) believe that counseling skills are paramount, although controversy exists over rehabilitation counseling's relationship separately to rehabilitation and to counseling. Historically, attitudes have been so divergent that in the 1950s, two separate organizations were created to serve the rehabilitation counseling

profession. The two organizations are the National Rehabilitation Counseling Association (2001), which is a division of the National Rehabilitation Association, and the American Rehabilitation Counseling Association (2005), whose parent organization is the American Counseling Association. Two organizations exist, rather than only one, due to a theoretical schism in rehabilitation's early years over whether rehabilitation counseling required psychological training. Controversy over rehabilitation's relationship to counseling continues, and the two organizations remain separate, with only one of them focused on counseling (Patterson et al., 2005).

Serving the numerous rehabilitation organizations are a large number of graduate educational programs in rehabilitation counseling. The number of graduate programs grew partly due to the 1992 and 1998 amendments to the Rehabilitation Act of 1973, which emphasized the necessity of stronger qualifications for rehabilitation counselors. Before the need for solid training in rehabilitation counseling was recognized, counselors generally received training in education. In 1971, the Council on Rehabilitation Education was formed (Council on Rehabilitation Education, 2005) to provide accreditation to graduate rehabilitation counseling programs, setting forth educational standards, practicum hours, and required internship activities (Council on Rehabilitation Education, 2007). While some counselors currently working in the field have only a bachelor's degree, organizations such as the California Department of Rehabilitation are now hiring, with few exceptions, only counselors with master's level training in

rehabilitation counseling or a related field. However, counselors with bachelor's level education who were previously hired may continue to counsel for the time being.

Once a student has completed the necessary course work, practicum time, and internship hours, she or he may become certified. The Commission on Rehabilitation Counselor Certification requires applicants to pass an examination covering twelve topics relating to rehabilitation, disability, and counseling. They must also agree in writing to follow the *Code of Professional Ethics for Rehabilitation Counselors.* Once certified, the counselor must take continuing education in the future or pass the CRCC exam again. (Patterson et al., 2005).

To ensure appropriate treatment of clients, rehabilitation counselors are held accountable to a Code of Professional Ethics, jointly revised in 1987 by the National Rehabilitation Counseling Association, the American Rehabilitation Counseling Association, and the Commission on Rehabilitation Counselor Certification. Counselors are also bound by legislative acts. The first federal Vocational Rehabilitation Act was passed in 1920 (Patterson et al., 2005), with amendments in 1943, 1954, and 1965, 1967, and 1968 (State of Michigan, 2007). The Rehabilitation Act of 1973 was later established to protect those who have disabilities (United States Department of Education, 2004). As amended in 1992 and 1998 (Patterson et al., 2005), the Rehabilitation Act authorized research and grants for vocational rehabilitation, training, independent living, supported employment, and client assistance, and the Act established regulations pertaining to the rights of individuals who have disabilities (United States Department of Education,

2004). Catherine Campisi, former Director of the California Department of Rehabilitation, commented in a letter to the California State Auditor (2000) that the 1992 Amendments increase access to vocational rehabilitation for those with severe disabilities.

Successful Vocational Rehabilitation

The Department of Rehabilitation organizes reasons for closing a client's case into five main categories and assigns them corresponding statuses: Closed Ineligible (status 08), Closed No IPE Services (status 30), Closed Waiting List (status 38), Closed Employment Outcome Not Achieved (status 28), and Closed Employment Outcome Achieved (status 26). A client closed in status 08 is one who was found ineligible for services; for example, a client applying for services on the basis of a broken leg might be refused services because the disability is short-term. A status 30 closure indicates that the client was found eligible but was never put into plan. One such case would be a client who made it through the eligibility process, and who then decided she was not motivated to work after all. Status 38 is used for those applicants who are placed on the waiting list, but who decline to wait for services. Status 28 is the Department of Rehabilitation's least desirable closure. This status indicates that the client was found eligible, had a plan written for the services necessary to reach his or her vocational goal, received some or all of those rehabilitation services (with their corresponding costs to DOR), and still the client could not be proven to have obtained and maintained successful employment.

Clients are closed in status 26, the most desirable status, when they are able to remain employed in an appropriate job for ninety days (Department of Rehabilitation, 2001). Mount et al. (2005) listed ten possible reasons other than successful employment for closure: "failure to cooperate," "transportation not feasible or available," "too severe disability to resume employment," "no disabling condition, "no substantial impediment to employment," "unable to contact client," "client was institutionalized," "transferred to another agency," "other reasons," and "death."

Successful closures are defined differently by various researchers. While Schaller and Yang (2005) consider a case successful when the client was found eligible and put into plan, most researchers believe that a client must obtain employment in order to be closed successfully. Capella (2005) defines a successful employment outcome as competitive employment, self-employment, or supported employment at the time of case closure, but she does not count homemaking, employment in a sheltered workshop, or unpaid family work in this category. Agbunag (2006) eliminates only homemakers and family workers. In a 1990 study, Szymanski, Parker, and Butler disclude supported employment in their tally of successfully rehabilitated clients, and in a later study (Szymanski and Danek, 1992), Szymanski uses only competitive closures – cases where the client became independently, gainfully employed in a community setting – as an indicator of successful client outcome. Bellini (2003) determines rehabilitation rate by calculating the ratio of individuals who achieve successful employment outcomes (status 26) to the total number of individuals whose cases are closed after the Individualized Plan

for Employment has been signed (status 26 and status 28). The California Department of Rehabilitation also tracks the ratio of all cases closed in status 26 to the total number of cases closed in 26 and in 28 (National Archives and Records Administration, 2007b), looking for at least a 55.8% success ratio per the Code of Federal Regulations (National Archives and Records Administration, 2007c). The present study will follow the assessment convention used by DOR and the Code of Federal Regulations, examining the ratio of competitive closures to all cases closed after receiving services.

Factors Associated With Differing Rehabilitation Outcomes

Naturally, the goal is for every client to achieve a successful vocational outcome, but this goal is not always realized. One study of more than 379,000 clients found that only 55% of clients' cases are closed successfully after being put into services (Rosenthal et al., 2005). Another study found that only 53% of post-plan closures, or 35% of all closures, were in status 26 (Agbunag, 2006).

Many researchers have sought to explain why certain clients achieve successful outcomes when others do not. For example, some researchers have looked at the relationship between client characteristics and successful employment. Agbunag (2006), for one, found that of all successfully rehabilitated clients in 2005-2006, 8,258 were male and 6,032 were female. Most of these clients (7,254) were white; 1,947 were Hispanic; 2,186 were black; and 2,903 were other races. Looking at client marital status, 9,404 individuals were never married; 2,141 were married; 1,791 were previously married; and

954 were either separated or widowed. Of individuals who achieved successful employment outcomes, 12,391 were not working at the time of referral. (A client who is already employed at the time of application may be eligible for services if the client could be considered underemployed). The most common disabilities (42%) among successfully rehabilitated clients are physical disabilities, closely followed by mental disorders (41%). Sensory impairments and traumatic brain injuries lag far behind, at 16% and 1% respectively (Agbunag, 2006).

Researchers have also looked at the relationship of client race to success of vocational rehabilitation. One researcher found that the rates of successful outcomes for White and Hispanic individuals are significantly higher than are the rates for African Americans, Asian Americans, or Native Americans (Rosenthal et al., 2005), while another researcher (Capella, 2005) found that the odds of successful closure are greater for Latino American than for European American clients.

The relationship between gender and successful outcome has been examined as well, and it appears complicated. One study found that women are less likely to obtain successful competitive employment, and that the likelihood continues to decrease as the clients age (Capella, 2002). However, a later study by the same researcher found that gender had no relationship to employment outcomes among blind clients (Capella, 2005). Rosenthal et al. (2005) likewise observed no association between gender and likelihood of successful vocational placement.

Client education is another variable that has been analyzed. One study found that clients who have at least high school education are twice as likely to obtain successful employment as clients who have not completed high school (Berry, 2000). However, another study (Capella, 2005) found no connection between educational level and outcome.

Age has been examined as well. Schaller and Yang (2005) found that increasing age from 21 up to 45 years is positively related to successful outcomes among individuals with autism, while White and Weiner (2004) found no connection between age and competitive employment.

Financial assistance also appears to be related to closure status, as clients who receive economic support are more likely to drop out before their cases can be closed successfully (Hayward & Schmidt-Davis, 2003a). Disability status, too, has been examined. The presence of a secondary disability is related to unsuccessful closure among clients with autism (Schaller & Yang, 2005). However, Capella (2005) found no connection between closure status and either the presence of a secondary disability or the severity of impairment, and White and Weiner (2004) observed no relationship between type of disability and outcome.

Researchers have additionally looked at a client's place of residence, finding that vocational rehabilitation may be more challenging in rural areas. Individuals living in rural areas generally experience more difficulty with maintaining and even obtaining employment (Arnold & Seekins, 1997; Kirchner, Johnson, & Harkins, 1997).

While outcome studies looking at client characteristics are useful, it may be preferable to focus on aspects that rehabilitation counselors can more easily influence, like their own behaviors (Johnstone, Vessell, Bounds, Hoskins, & Sherman, 2003; Kirchner, Johnson, & Harkins, 1997). One important factor that the counselor may be able to influence is the relationship between the counselor and the client. One study (Hayward & Schmidt-Davis, 2003b) found that a higher-quality counselor-client relationship, as perceived by the client, is positively related to employment outcome. Another study (Capella, 2005) found that a high-quality relationship between a counselor and a client who is blind or visually impaired gives the client a 250% higher likelihood of achieving a successful employment outcome than if the two had a lower-quality relationship. The relationship between the client and the counselor was one of the three most important factors associated with positive employment outcomes in this study.

If the client-counselor relationship is related to positive outcome, how can this relationship be enhanced? Capella (2005) found that the counselors who were able to develop higher-quality relationships with their clients were the counselors with training in counseling skills. Along the same line, vocational guidance and counseling are highly connected to successful employment outcomes for clients with traumatic brain injuries (Johnstone et al., 2003).

Counseling Theory

Vocational rehabilitation counseling has elements of job placement, job development, and case management, but it is a different process. Rehabilitation counseling includes vocational, behavioral, social, and psychological aspects. Imbimbo (1994) states that personal and career counseling should not be entirely separate, as personal and career issues have a great deal of overlap. Thomas and Parker (1986) assert that counseling is the foundation of vocational rehabilitation and that counseling fosters client movement toward empowerment and independence. Ryder (2003) similarly says that counseling is the foundation on which rehabilitation rests, and that counseling is necessary for clients to be able to make truly informed choices. Counseling, therefore, facilitates the psychological, social, and attitudinal growth that can help life satisfaction to bloom, ultimately helping the individual to achieve a successful vocational outcome (Parker, Hansmann, Thomas, & Thoreson, 2005).

If effective counselors assist their clients' psychosocial and cognitive growth, then what makes a counselor effective? Some researchers believe that counseling theory provides the framework for counselors to facilitate life satisfaction, empowerment, and independence in their clients. Kerlinger (1986) states that theories systematically describe and explain the world through interrelated groups of concepts, propositions, and definitions, although Brown (2002) describes theories as simply approximations of complex events. According to Hansen, Stevic, and Warner (1986), theory is essential for meaningful action and order.

Brammer and Shostrom (1977) assert that counseling theory enables counselors to describe, explain, predict, and change behavior (Brammer & Shostrom, 1977). Kosciulek (1999) says that theory is necessary for comprehending complexity, and that it serves as an outline for examining previous research. Corey (2005) also believes that counseling theory is important. He comments that a counselor's theoretical orientation provides the window through which the counselor views a client, and that the strategies a counselor uses in moving toward a goal are greatly determined by the counseling theory to which the counselor subscribes. Imbimbo (1994) agrees that counseling theory can be a useful tool for changing clients' thoughts and behaviors. Additionally, counseling theory is thought to help counselors perceive relationships between people, events, and environments (Pines & Maslach, 1978). The use of counseling theory is believed to serve as a framework for showing clients respect and reducing ethical uncertainty (Ryder, 2003). Spruill and Benshoff (2000) state that the formulation of a personal counseling theory is needed for a counselor's development. Parker et al. (2005) similarly declare that an understanding of the major psychological approaches is necessary in order for a rehabilitation counselor to be competent or effective. Ryder (2003) takes a stronger stand, further asserting that "the counseling techniques used by vocational counselors will have an everlasting impact on the ultimate employment outcome."

Researchers are not the only ones who believe that counseling theory is important. The Commission on Rehabilitation Counselor Certification (2007b) requires applicants for certification to have taken at least one course in theories and techniques of

counseling. The Commission also includes counseling as one of the main topics covered on the counselor certification exam (Patterson et al., 2005).

Graduate programs, too, operate on the assumption that counseling theory is important. Rehabilitation master's programs generally include at least one class on counseling theory (Ryder, 2003). According to Spruill and Benshoff (2000), counseling theory is an essential part of counselor education.

The Department of Rehabilitation is no different in its focus on counseling theory. Four separate qualifications exist that allow an individual to apply for a rehabilitation counseling position with the California Department of Rehabilitation. Two possible routes are to have a Master's degree in Rehabilitation Counseling or to have years of experience and national certification as a Certified Rehabilitation Counselor. Both of the other routes to employment require evidence of having taken one particular graduate course: theories and techniques of counseling (Department of Rehabilitation Selection Services Unit, 2006).

If counseling theory is indeed an important element of vocational rehabilitation, counselors have plenty of varieties from which to choose, as more than 400 counseling theories exist (Corsini & Wedding, 2005). However, certain theories are more prominent currently than others (Parker et al., 2005). Some of the more popular theories are Carl Rogers' person-centered approach, Frederick Perls' gestalt therapy, and Albert Ellis' rational emotive behavioral therapy (Ryder, 2003). It makes sense that these three theories would be frequently employed because they, along with Adlerian and

Psychoanalytic theories, are among the most familiar theories due to their inclusion in major counseling textbooks (Corey, 2005; Corsini & Wedding, 2005).

Researchers suggest that different counseling theories be used in disparate ways in rehabilitation. For example, Livneh and Sherwood (1991) suggest that Rogerian counselors motivate their clients to discuss their feelings and to attend to the discrepancy between their real and ideal selves, while Gestalt counselors should encourage their clients to talk about realistic goals and to enact dialogues between their disabled and non-disabled psychological parts.

However, which counseling theory a counselor prefers may be less important than whether a counselor follows any theory at all. An eclectic or integrative approach to counseling, combining techniques or melding several theories, was once viewed as detrimental to the counseling process due to possible inconsistency. Now, an eclectic approach to counseling is becoming more common as counselors increasingly believe that no single theory is appropriate for every client or for every concern (Parker et al., 2005). In fact, in one small study, 40% of counselors proceeded from an eclectic viewpoint, and 10% adopted eclectic theorization in concert with a Rogerian approach (Ryder, 2003). One limitation of popular counseling theories is that they may be unable to facilitate the growth of clients from all ethnic backgrounds. Researchers have learned that most counseling theories stem from a Eurocentric perspective (Corey, 2001), and that these theories may be ineffective with clients from non-European backgrounds (Lee, 1997).

While researchers, the Commission on Rehabilitation Counselor Certification, graduate programs, and the Department of Rehabilitation assert the importance of counseling theory, some dissenting voices question whether counseling even matters in vocational rehabilitation. As mentioned earlier, two independent professional organizations were established within the field of rehabilitation counseling, and the primary issue separating them was whether rehabilitation workers needed training in psychological counseling (Patterson et al., 2005). Given the emphasis on counseling theory, and the dissenting opinions regarding counseling's relationship to vocational rehabilitation, it is surprising that little research has been conducted regarding the relationship of counseling theory to the rehabilitation process (Ryder, 2003). As of 2002, no research had been conducted at all examining the counselor-client relationship within the larger state-federal rehabilitation system to which DOR belongs (Lustig, Strauser, Rice, & Rucker, 2002). Lustig et al. further highlighted the importance of providing empirical support for a connection between counseling skill and employment outcome. A search of the Academic Search Elite, National Rehabilitation Information Center, and PsycINFO databases for the terms "counseling theory" and "vocational rehabilitation" yielded no articles that empirically examined whether counseling theory has any relationship at all with rehabilitation outcome. Such research would be particularly desirable given that use of counseling theory is one aspect of the rehabilitation process under the counselor's direct control, and research into controllable aspects of the rehabilitation process is more useful than research into aspects (such as client's race or

gender) that are not (Johnstone et al., 2003; Kirchner, Johnson, & Harkins, 1997), as the identification of such controllable variables is where vocational rehabilitation has the greatest likelihood of improving clients' vocational outcomes (Capella, 2005). Therefore, the present study aims to examine the role of counseling theory in the success of vocational rehabilitation outcome.

Primary Research Hypothesis

A vocational rehabilitation counselor's use of counseling theory is positively associated with the counselor's ratio of successful rehabilitation outcomes, and this association is mediated by the organizing function of counseling theory.

METHODS

The investigator sent all 41 senior vocational rehabilitation counselors currently working in the Redwood Empire district an email which included an implied consent statement and a set of questions pertaining to counselor demographics, use of counseling theory, and organization of work with clients (see Appendix A). Responding to these questions took approximately 15 minutes. The survey instrument reassured the participating counselors of the methods in which their confidentiality was protected. Asking these counselors to participate was appropriate because, according to Patterson and Blackwell (2005), "Counselors have a responsibility to contribute to the expansion of knowledge in addition to an obligation to assist in research activities needed to more effectively serve people with disabilities" (p. 100).

Information on the counselors' caseloads was derived from DOR's Field Computer System database, using a computer program called CIDOR (Department of Rehabilitation, n.d.). This information was available to the investigator as an employee of the Department of Rehabilitation. Permission was granted to use this archival data by the Rehabilitation Supervisor at the Eureka field office of the Department of Rehabilitation, the Redwood Empire District Administrator, and the Department of Rehabilitation Deputy Director of Employment Preparation Services, as well as from the Institutional Review Board of Humboldt State University. Only archival data from clients ages 18 or older whose cases were closed in 2006 in status 26 (in competitive employment) or in

status 28 within the Redwood Empire were included in this study. Client information was gathered from each client's Client Information Report form (DRCIR), printed out from the DOR computer system's FCS 409 screen, a screen that details client demographic information, disability, and rehabilitation status.

When responses were received from the counselors, each counselor's survey was paired with her or his caseload, and then all information that could identify the counselors or the clients was removed prior to analysis. The investigator personally analyzed all data and ensured that all procedures followed acceptable standards. In compliance with American Psychological Association ethical principles (Columbia University, 2004), the combined data will be kept for 5 years after completion of the thesis. At that point, all materials will be shredded.

RESULTS

Counselor Characteristics

All 41 Senior Vocational Rehabilitation Counselors currently working at field offices within the Redwood Empire District of the California Department of Rehabilitation received a survey packet, which included a set of questions pertaining to demographics, use of counseling theory, and organization of work with clients (see Appendix A). From the 41 counselors, 24 elected to participate. All counselors answered all questions (except for one respondent who omitted gender and age). Age and years of experience were treated as continuous variables, gender was treated as a dichotomous variable, and educational level was treated as a categorical variable. Of the 23 counselors who answered the item pertaining to gender, 57% were female, and 43% were male. Ages of the 24 counselors ranged from 37 to 62 (M= 52.26, SD = 6.95), and years of experience as a rehabilitation professional varied from 2 to 35 (M = 13.92, SD = 8.26). Of these 24 professionals, 25% held bachelor's degrees, 62.5% had master's degrees, and 12.5% had earned doctoral degrees (see Table 1).

Table 1

Counselor Age, Years of Experience, and Educational Level

Age	*N*	Years of Experience	*N*	Educational Level	*N*
37	2	2	3	BA/BS	6
42	1	3	1	MA/MS	15
48	3	7	1	PhD	3
49	2	8	1		
51	1	9	1		
52	2	10	4		
53	1	14	2		
54	1	17	1		
55	2	18	3		
56	1	19	2		
57	1	20	2		
58	1	24	1		
59	3	25	1		
62	2	35	1		
Decline to State	1				

Each counselor closed between 5 and 68 cases (M = 25.79, SD = 14.01) in 2006. The number of status 26 closures per counselor ranged from 0 to 28, and the amount of status 28 closures for each counselor varied from 1 to 46. Total number of closures per counselor, in either status, varied from 5 to 68. The largest disparity between status 26 and status 28 outcomes for one counselor was 26 (or 11 status-26 closures and 37 status-28 closures).

Days to eligibility ranged from 0 to 673, with a mean of 43.88 (SD = 57.67). The mode for days to determine eligibility was 61 (with 32 cases). In more than 19% of cases, eligibility determination took longer than 60 days, which is the current standard (see Table 2).

Table 2

Days Elapsed Before Determination of Eligibility

Days	*N*	Days	*N*	Days	*N*	Days	*N*	Days	*N*
0	52	31	11	62	17	94	1	165	1
1	91	32	7	63	8	95	3	169	1
2	24	33	6	64	9	97	5	175	2
3	19	34	12	65	3	101	1	179	2
4	21	35	23	66	2	104	3	187	1
5	11	36	17	67	1	105	2	197	1
6	12	37	7	68	3	106	1	202	1
7	18	38	10	69	7	107	3	228	1
8	6	39	9	70	5	108	1	232	1
9	9	40	7	71	3	109	1	234	1
10	5	41	12	72	2	111	2	237	1
11	9	42	23	73	1	112	1	238	1
12	2	43	17	74	1	113	1	244	3
13	8	44	9	75	1	116	1	253	1
14	8	45	5	76	4	117	1	293	1
15	18	46	12	77	4	119	2	299	1
16	9	47	27	78	6	121	1	308	1
17	9	48	24	79	3	122	1	311	1
18	3	49	12	80	1	123	2	329	1
19	8	50	14	81	1	128	1	339	1
20	17	51	11	82	1	132	1	353	1
21	16	52	9	83	3	133	1	361	1
22	14	53	17	84	3	136	1	463	1
23	10	54	10	85	5	137	1	538	1
24	6	55	23	86	1	141	1	672	2
25	14	56	13	88	1	144	1	673	1
26	15	57	13	89	3	146	1		
27	13	58	23	90	1	147	1		
28	21	59	14	91	3	150	1		
29	17	60	12	92	4	158	1		
30	11	61	32	93	1	161	1		

Each counselor answered 16 questions, 8 questions to assess use of counseling theory and 8 other questions to examine counseling organization. Questions 2, 3, 5, 6, 9, 11, 13, and 15 were designed to examine use of counseling theory, with questions 2, 5, 9, and 13 reverse-scored. The remaining questions looked at counseling organization. Questions 1, 8, 12, and 14 indicated greater counseling organization, and questions 4, 7, 10, and 16 were reverse-scored. Counselors were given seven Likert scale responses from which to choose (1 = Completely Disagree; 2 = Somewhat Disagree; 3 = Slightly Disagree; 4 = Neither Agree nor Disagree; 5 = Slightly Agree; 6 = Somewhat Agree; and 7 = Completely Agree). Mean responses were generally close to the middle of the scale, and standard deviations were fairly wide, except for question number 10 ("I take a flexible approach with clients.") The mean was 6.46 for this question, and the standard deviation was only 0.72 (see Table 3).

Table 3

Number of Counselors Choosing Each Response to Each Item

Question	1	2	3	4	5	6	7	*M*	*SD*
Question 1: "I know exactly what procedures I will use before I meet a client for intake."	6	5	0	1	7	3	2	3.63	2.16
Question 2: "Counseling theory has little relevance to my everyday work with clients."	7	7	0	2	1	6	1	3.21	2.19
Question 3: "I serve almost all of my clients with counseling theory in mind."	3	4	4	3	1	2	7	4.21	2.27
Question 4: "I prefer to wing it rather than to have every step planned out when I work with clients."	2	2	3	3	5	7	2	4.50	1.79
Question 5: "As a vocational rehabilitation counselor, I seldom use counseling theory."	8	4	0	2	1	8	1	3.50	2.32

Question 6: "Counseling theory is helpful when I work with clients."	1	5	0	1	6	4	7	4.92	2.02
Question 7: "The methods I use are never the same from one client to the next."	0	7	6	5	0	4	2	3.96	1.78
Question 8: "I am more organized than spontaneous during plan development."	0	1	3	2	8	5	5	5.17	1.44
Question 9: "Counseling theory does not help me provide services to clients."	7	8	1	2	2	3	1	2.88	1.96
Question 10: "I take a flexible approach with clients."	0	0	0	0	3	7	14	6.46	0.72
Question 11: "As a vocational rehabilitation counselor, I generally rely on counseling theory."	3	4	2	5	4	3	3	4.00	1.96
Question 12: "I have a system that I generally follow when working with clients."	1	1	0	3	7	3	9	5.46	1.64

Question 13: "As a vocational rehabilitation counselor, I do not focus much on counseling theory because other things are more important."	3	4	3	2	2	9	1	4.13	2.01
Question 14: "I have a methodical approach to vocational rehabilitation counseling."	0	4	4	0	5	6	5	4.83	1.83
Question 15: "Counseling theory has a great impact on my work with rehabilitation clients."	1	6	3	2	2	6	4	4.33	2.04
Question 16: "As a vocational rehabilitation counselor, I am more creative than organized."	0	2	3	3	7	5	4	4.92	1.53

Relationship Between Counseling Theory, Organization, and Employment Outcome

The counselors' data were matched up with the data of their 619 clients ages 18 or older whose cases were closed in status 26 (in competitive employment) or 28 during 2006. Archival data were also analyzed separately for the larger population of all 1121 clients at least 18 years old whose cases were closed in competitive employment or in status 28 during 2006 (including those clients whose counselors elected not to participate in this study). (For further information and comparisons of the two client groups, see Appendix B.) The investigator used an alpha level of .05 in SPSS 15.0 for all inferential analyses. SPSS was also used for all other analyses except for the determination of effect size, which used Becker's (2000) effect size calculator.

The criterion variable for this study was the ratio of competitive status 26 closures to competitive status 26 plus status 28 closures. The predictor variables were total score on use of counseling theory questions and total score on counseling organization questions. All three variables were treated as continuous variables.

Normality was assessed both graphically and statistically. After visual inspection of skew and kurtosis via a probability plot, numerical tests for skewness and kurtosis were run. Some statisticians (e.g. Williams, 2006) assert that skewness and kurtosis within 3.29 standard errors are acceptable, following Tabachnick and Fidell (2001). Other scholars (e.g. Brown, 1997) suggest that skew and kurtosis within two standard errors are generally acceptable. Cutting (2007) states that unstandardized values for skew and kurtosis should lie between -2 and +2. Because all variables' standardized skew and

kurtosis scores fell within two standard errors, and all unstandardized skew and kurtosis scores fell between -2 and +2, the decision was made to use no transformations.

Outliers were examined graphically and statistically as well. DeCoster (2006) and Cohen, Cohen, West, and Aiken (2003) state that standardized residuals greater than three standard scores from the mean are likely outliers. Field (2005) asserts that any case with a standard score larger than 3.29 is a significant outlier. All cases were within three standard scores of the mean, so no cases were excluded.

A graphical assessment of linearity was performed. Additionally, homoscedasticity was graphically confirmed, although DeCoster (2006) indicates that, because regression is robust to heteroscedasticity, only very large differences in variance need be considered. No great differences in variance were apparent in this study.

The relationship between use of counseling theory, counseling organization, and rehabilitation outcome ratio was analyzed using Baron and Kenny's (1986) four-step approach for assessing mediation, in which a regression analysis is conducted for the predictor and the criterion, a second analysis is run for the predictor and the mediator, a third analysis is conducted for the mediator and the criterion, and finally, a multiple regression analysis is run for the predictor and the mediator with the criterion.

First, the relationship between use of counseling theory (M =35.75, SD = 13.69) and rehabilitation outcome ratio (M = .553, SD = .184) was measured. Use of counseling theory was operationalized by total score on counseling theory use questions, and rehabilitation outcome was measured by the counselor's number of status 26 outcomes in

competitive employment divided by status 26 plus status 28 outcomes. Scores on use of counseling theory ranged from 14 to 56, and outcome ratios ranged from a minimum of .250 to a maximum of .833. The analysis did not confirm the prediction that the two variables would be related, producing a nonsignificant correlation of -.153 between the two variables (r^2 = .023) at α = .05 (F (1, 22) = .53, p = .476). The regression equation's slope was -.002 (t (22) = -.726, p = .476). Greater reported use of counseling theory was not associated with higher ratios of successful employment outcomes (see Figure 1).

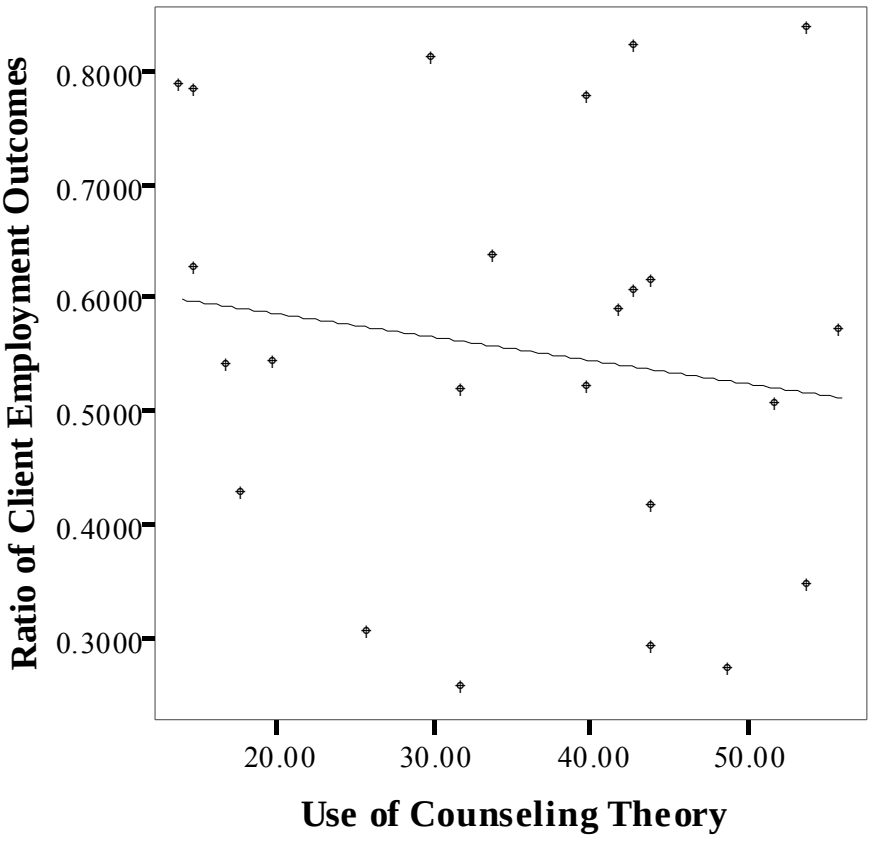

Figure 1. Relationship between ratio of client employment outcomes and total counselor score on use of counseling theory. The results were nonsignificant.

Second, the relationship between counselor organization and employment status ratio was analyzed. Scores on counselor organization ranged from 16 to 42. The prediction that counselor organization (M = 31.25, SD = 6.23) and employment status ratio (M = .553, SD = .184) would be related was also not confirmed. The analysis revealed a correlation of .067 between the two variables that was nonsignificant at $\alpha = .05$ (p = 0.654). The slope for this equation is .001 (t (22) = .171, p = .866). Greater reported counselor organization had no association with ratio of successful client employment outcomes (see Figure 2).

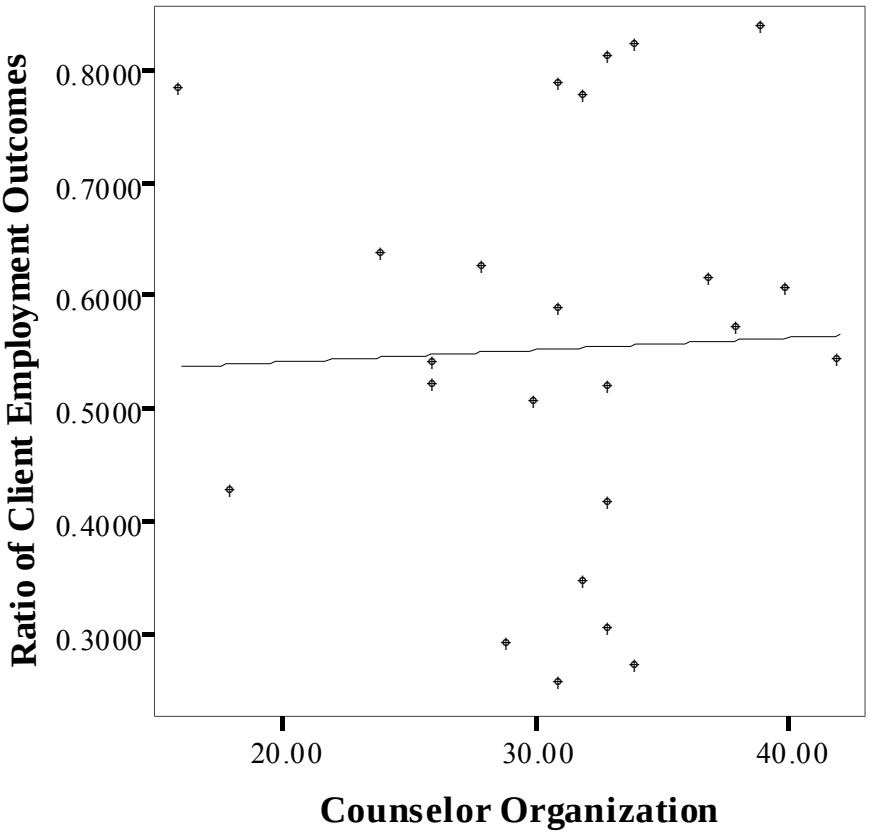

Figure 2. Relationship between ratio of client employment outcomes and total counselor score on counseling organization. The results were nonsignificant.

Third, the relationship between counseling theory (*M* = 35.75, *SD* = 13.69*)* and organization (*M* = 31.25, *SD* = 6.23*)* was tested. This analysis presents a different picture. The analysis confirmed the prediction that the two variables would be related, yielding a positive correlation of .483 between the two variables (r^2 = .233, *N* = 24), which is significant at α = .05 (*F* (1, 22) = 6.701, *p* = .017). The regression equation has a slope = 0.22 (*t* (22) = 2.589, *p* = .017). A statistically significant lack of independence exists between counseling theory and counseling organization. Greater counselor organization is associated with greater use of counseling theory. Counseling organization increased by 0.22 for every point of increase in use of counseling theory. The standard error of estimate is .396, so 95% of the time the true value will be within 0.792 of the estimate. Approximately 23.3% of the variance in counseling organization is predicted by use of counseling theory. Further analysis using an effect size calculator (Becker, 2000) revealed Cohen's *d* to be 1.104, effect-size *r* = 0.483. This might be deemed a medium effect size (Cohen, 1988). This relationship can be seen graphically in Figure 3.

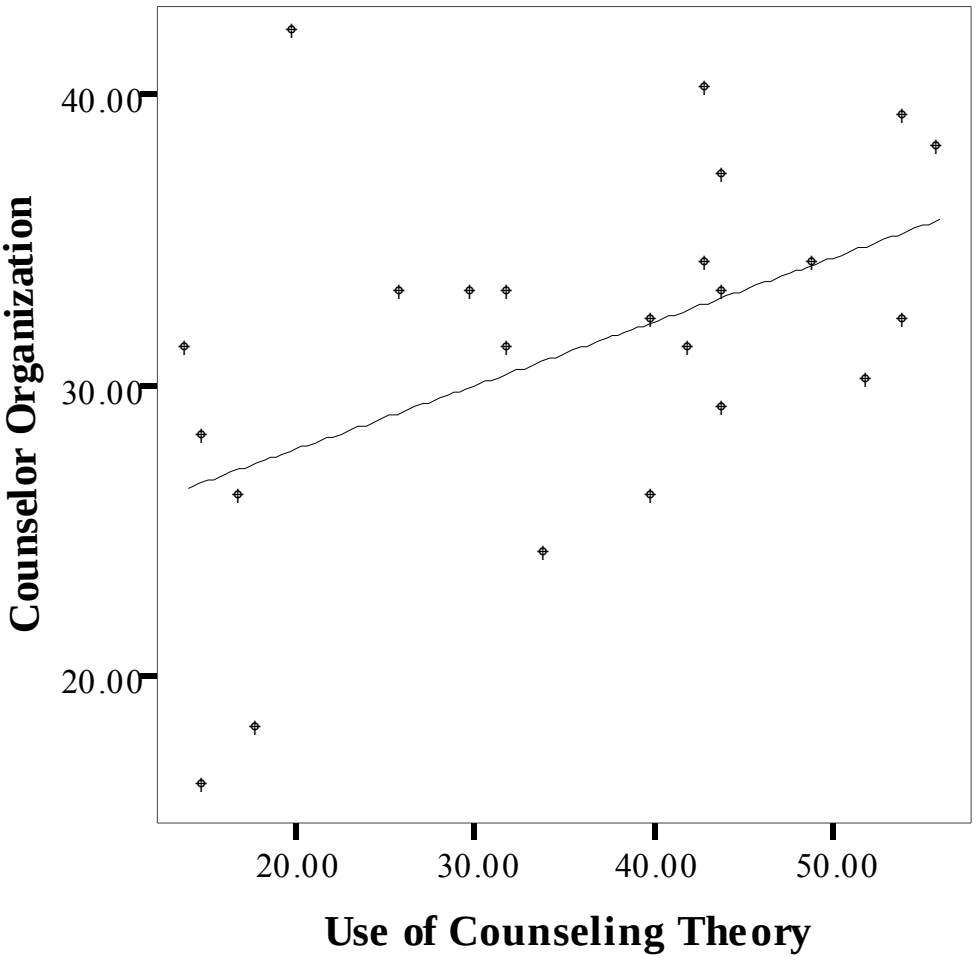

Figure 3. Relationship between counselor organization and use of counseling theory. The results were significant at $p<.05$.

DISCUSSION

Contrary to expectations, counselors who reported greater use of counseling theory were no more successful at guiding their clients toward favorable outcomes than were counselors who use theory less frequently. This finding is surprising given Parker et al.'s (2005) contention that an understanding of counseling theory is essential in order for a counselor's work with rehabilitation clients to be effective. If effectiveness is measured by the proportion of clients who maintain successful employment, then counseling theory seems to have little relevance to a vocational rehabilitation counselor's effectiveness. Interestingly, the graph of counseling theory and rehabilitation outcome actually had a negative slope, indicating that, while the results were nonsignificant, the trend was toward greater use of counseling theory being paired with fewer successful employment outcomes. Organization, too, was shown to have no relationship with rehabilitation outcome, although the slope of the graph was positive. Counseling theory does not appear to serve as a framework for vocational rehabilitation. However, the connection between counseling theory and counseling organization was supported. Hansen et al.'s (1986) assertion that order necessitates theory was not disconfirmed. The results showed that use of counseling theory is indeed associated with counseling organization.

A variety of possibilities exist for explaining these unexpected findings. One possibility is that client characteristics somehow affected the outcome. Not all clients district-wide were included in the primary analyses. However, a substantial

sample of 619 was examined, and in general, these clients were similar to the larger group. Both groups had a broad age range, from 18 to mid-60s. Both groups also included a fairly even distribution of status 26 and status 28 closures.

While clients' statistics within the primary sample were similar to clients' statistics district-wide, they exhibited slightly more disparity from statewide numbers in terms of race, disability types, and level of significance of their disabilities. First, 84.4% of clients included in the main analyses were categorized as White, compared to as few as 68% of rehabilitation clients in Rosenthal et al.'s (2005) study. Some studies have found that a client's race is associated with rehabilitation outcome. Studies have shown that African American, Asian American, and Native American clients tend to achieve less successful employment outcomes than do White clients (Bellini, 2003; Berry, 2000; Capella, 2002; Rosenthal et al., 2005; Schaller & Yang, 2005), while Hispanic Americans have better odds of successful closure than any of these groups (Capella, 2005). Because clients from each of these racial groups differ in terms of vocational outcome, it may be possible that clients from different racial groups also relate differently with the use of counseling theory. However, White and Weiner (2004) found no connection between client demographics and rehabilitation outcome.

Second, these clients exhibited a high percentage of primary disabilities that would be considered mental (cognitive, psychosocial, or other mental) rather than physical, whereas Agbunag (2006) found that physical disabilities are slightly more common among clients. The high ratio of mental disabilities may be one reason for the

surprising results of this study. Clients with psychosocial disabilities may be receiving psychological counseling in the community, which could perhaps alter the clients' response to counseling in the vocational rehabilitation office. However, this possibility is purely speculative. Examination of the use of counseling theory with clients who have physical versus mental disabilities might be a rewarding future study.

A third difference between this sample and clients statewide is the high number of clients with significant disabilities. As previously discussed, Department of Rehabilitation clients are placed in one of the following categories: disabled, significantly disabled, or most significantly disabled. The California State Auditor's (2000) research determined that most of DOR's clients are in the most severely disabled category. However, the present study found that the largest group of clients in the Redwood Empire District was in the middle severity category. Counseling theory may have a different relationship with vocational outcome for clients in each separate disability grouping. However, Capella (2005) found no connection between severity of impairment and employment outcome, and White and Weiner (2004) discovered no relationship between type of disability and outcome, so the ratio of significant disabilities seems less likely to have had an impact on the results of this study.

Generalization of these findings may be limited by counselor characteristics. As is customary with survey research, not all who were contacted chose to participate, which somewhat affected statistical power. The characteristics of those counselors who did participate in this study may differ from the characteristics of other California

rehabilitation counselors. Also, the 24 counselors who were willing to participate might have been those who had more theoretical knowledge. One counselor mentioned that she had been hesitant to complete the survey because she did not know much about counseling theory.

Counselor education and exposure to counseling theory could also have affected this research. Only six counselors without graduate degrees responded to the survey. Different results might have been obtained given a higher response rate among those who had earned only bachelor's degrees. Because all counselors had received at least a bachelor's degree, it is possible that all 24 individuals had been exposed to counseling theory in some form, and that this exposure influenced their counseling, whether or not they were aware of the effect of this exposure. It is interesting to note that even though only 24 counselors participated, a broad range of theoretical orientations was represented. Those counselors who indicated that they did use counseling theory mentioned the following: Person-Centered, Reality therapy, Gestalt therapy, Eclectic, Cognitive-Behavioral, Psychodynamic, Solution-Focused, Behavioral, Adlerian, and Existential. Happily, the counselors included in this study also represented a wide range of ages (37 to 62), years of experience (2 to 35), and cases closed per counselor (5 to 68). All counselors responded to every question on the counseling theory and counseling organization measures, resulting in no missing data for the main analyses. The range of theoretical orientations and demographics, as well as the lack of missing data, increase confidence in the validity and representativeness of the sample.

One aspect of the counselors' work worthy of further discussion is the length of time taken to determine client eligibility. Since October 1, 2006, the Department of Rehabilitation has required counselors to determine eligibility within 60 days. Many of the cases in this study were closed prior to October. Days taken by each counselor to determine eligibility ranged from 0 to 673, well beyond DOR's standards. However, the mean was only 43.88, well within requirements, and the mode (61) was only one day beyond DOR's current requirement. However, nearly 20% of clients had to wait more than 60 days for eligibility to be determined.

Neither client nor counselor characteristics, but rather the Redwood Empire district itself, may offer an explanation for the lack of significance found in the relationship between counseling theory and rehabilitation outcome. The Redwood Empire District is unusual in that it is largely rural. In rural areas, the disability rate is higher (Kirchner, Johnson, & Harkins, 1997), jobs are more dangerous, and health care services are less plentiful (Enders & Seekins, 1998; Walden et al., 1994). Additionally, job openings and rehabilitation services may be scarcer than they are in urban areas, and clients in rural areas live farther from the rehabilitation office (Arnold & Seekins, 1997; Kirchner, Johnson, & Harkins, 1997; Walden et al., 1994). It is difficult to know the part the district's rural backdrop played, as little vocational rehabilitation research has been done in rural regions (Capella, 2005).

The design of this research should also be considered in interpreting the results of the present study. The investigator constructed instruments to examine counseling theory

use and rehabilitation counseling organization, due to the unavailability of pre-existing measures. An advisable direction for future study would be the psychometric assessment of these measures, and, if necessary, the construction of more suitable instruments. Informal comments, though, have revealed that the counselors found these measures to be comprehensible and easy to complete. The counseling theory and organization scores had a wide range, and nearly every question had a good spread of responses. The exception was the tenth question ("I take a flexible approach with clients.") This question garnered only 5s, 6s, and 7s in response. The measures were able to yield the expected correlation between counseling theory and organization. While one might question the choice of the term "counseling theory" in the documents presented to the counselors, "counseling theory" is the wording most often encountered in seminal vocational rehabilitation counseling literature and in graduate program catalogues. Therefore, "counseling theory" seems to be the most appropriate term, and it appears unlikely that this phrasing influenced results in an undesirable way.

Although it is possible that the results obtained in this research could be due to client characteristics, counselor characteristics, the setting, or the limitations of the study, it seems more than plausible that, indeed, counseling theory is only mildly or not at all associated with the outcome of vocational rehabilitation counseling. This is especially true given that the success of psychological counseling has at least as much to do with the relationship between the client and the counselor as with which particular theory the counselor follows (Frank, Hoehn-Saric, Imber, Liberman, & Stone, 1978).

GENERAL CONCLUSIONS

This study has shown that counseling theory is not associated with vocational outcome. Information on rehabilitation success is important, because empowerment and independence are at stake for the nearly 60% of individuals with disabilities who are unemployed (Steinmetz, 2006). Given that successful vocational rehabilitation is associated with increased wages, job satisfaction, and life fulfillment (Agbunag, 2006; Hayward & Schmidt-Davis, 2003b; Mount et al., 2005), increasing the likelihood of successful rehabilitation is essential. The fact that the Department of Rehabilitation spent as much as $50,000 and 29 months per client (California State Auditor, 2000) reinforces the need to gain a better understanding of what encourages success.

Better understanding of ways in which to promote success is important, and yet research is lacking on rural vocational rehabilitation (Capella, 2005), and research on rehabilitation outcomes is often flawed and inconclusive (Szymanski & Danek, 1992). The current study has hopefully corrected at least a small part of this problem by showing that counseling theory is not related to vocational rehabilitation outcome. Therefore, the fact that graduate programs in rehabilitation generally spend at least one semester on counseling theory (Ryder, 2003) may be inappropriate. While counselor education has been connected to rehabilitation success (Szymanski & Danek, 1992), training in counseling theories may not account for this relationship. Something else about the experience of graduate education may account for the higher ratio of successes. Perhaps

those counselors who would produce better outcomes are more drawn to the experience of graduate school. Or perhaps exposure to counseling theory is important, even though the actual implementation of theory is not. More research should be done on the specific aspects of graduate education that are associated with improved outcomes. According to Garske (1999), rehabilitation counseling master's programs should examine their required coursework to see whether it really meets the needs of clients with psychiatric disabilities, particularly given that most graduate programs do not offer a course in rehabilitation of clients with psychiatric issues (McReynolds, 1999). Graduate programs might consider substituting a class on psychiatric rehabilitation for coursework in counseling theory.

This study did not attempt to determine whether a counselor's use of theory helps clients achieve success in less visible ways. Some clients discover, for example, that volunteer work is truly the best use of their time in terms of personal growth and benefit to society, and a counselor's application of counseling theory may help clients reach such decisions. Additionally, this study did not address counseling theory's possible impact on other closure statuses (status 08, 30, and 38) that also represent individuals who were unable to achieve the goal of becoming gainfully employed in the community.

Ultimately, the success of vocational rehabilitation may have more to do with the counselor-client relationship itself than with theoretical ideas about how counseling should proceed. If counseling theory serves as a tool for enhancing the counselor-client relationship, it may be beneficial, but perhaps the relationship can be enhanced as much

or more so without employing one or more of the traditional counseling theories. Can proceeding from a programmatic standpoint be useful in vocational rehabilitation counseling? This question may be answered by future studies that examine the impact of specific counseling theories, and the relationship of theory to alternative outcome measures. As Brown (2002) observed, theories are an attempt at representing an aspect of reality. Current counseling theories may not represent the best attempt at increasing vocational rehabilitation clients' successful outcomes.

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APPENDIX A: SURVEY PACKET

Dear Senior Vocational Rehabilitation Counselor:

I am a graduate student at Humboldt State University in the Master's program in Counseling Psychology and a Senior Vocational Rehabilitation Counselor Graduate Student Assistant in the Eureka field office. I am conducting this study in order to gain information on attitudes toward counseling theory. I would greatly appreciate your participation in this study by completing the attached questionnaire. The survey should take less than 15 minutes to complete. Participation in this research is voluntary. By completing the questionnaires it is assumed that you are providing your consent to participate. Answering these questions should cause you no discomfort, and may help you learn something about yourself.

If you have any questions, please contact Diana Easley at deasley@dor.ca.gov, or at 707-445-7822. You can also contact my thesis advisor, Ethan Gahtan, at eg51@humboldt.edu. I hope that you find the questionnaire interesting. If you are under 18 years of age please do not participate in this survey. Please fill out all of the demographic questions below and then continue with the questionnaire. Remember, there are no right or wrong answers, just how you feel. Thank you in advance for your assistance.

When you are finished, please return your completed survey to deasley@dor.ca.gov. I will match up your questionnaire with your caseload, give the questionnaire and the caseload a matching code, and then all identifying information will be removed and destroyed. I will not know who you are when I tabulate your responses. Your responses will be mixed with others' responses before they are reported. No information will be included in my thesis that could personally identify you. Additionally, all information that could identify your clients will be removed and destroyed. Thank you again for your help with this project.

Part I

Please answer the following questions:

1. Educational Level:
   ___High School ___Associate's Degree ___Bachelor's Degree
   ___Master's Degree ___Doctoral Degree ___Other

2. Sex: ___Male ___Female

3. Age: _____

4. Years of experience as a rehabilitation counselor: _____

5. If counseling theory/ies guide your work with vocational rehabilitation clients, which theories are they? If none, answer "none."

   _____

Part II.

Please indicate on a scale of 1 to 7 how much you agree with the following statements. Please respond with the number that best reflects your level of agreement.

1=Completely Disagree; 2=Somewhat Disagree; 3=Slightly Disagree; 4=Neither Agree Nor Disagree; 5=Slightly Agree; 6=Somewhat Agree; 7=Completely Agree.

1. I know exactly what procedures I will use before I meet a client for intake. _____

2. Counseling theory has little relevance to my everyday work with clients. _____

3. I serve almost all of my clients with counseling theory in mind. _____

4. I prefer to wing it rather than to have every step planned out when I work with clients. _____

5. As a vocational rehabilitation counselor, I seldom use counseling theory. _____
6. Counseling theory is helpful when I work with clients. _____

7. The methods I use are never the same from one client to the next. _____

8. I am more organized than spontaneous during plan development. _____

9. Counseling theory does not help me provide services to clients. _____

10. I take a flexible approach with clients. _____

11. As a vocational rehabilitation counselor, I generally rely on counseling theory. _____

12. I have a system that I generally follow when working with clients. _____

13. As a vocational rehabilitation counselor, I do not focus much on counseling theory because other things are more important. _____

14. I have a methodical approach to vocational rehabilitation counseling. _____

15. Counseling theory has a great impact on my work with rehabilitation clients. _____

16. As a vocational rehabilitation counselor, I am more creative than organized. _____

APPENDIX B: CLIENT CHARACTERISTICS

The data for the 619 clients ages 18 and over whose cases were closed in competitive employment or in status 28 from the Redwood Empire district during 2006 whose counselors participated in the study were tabulated separately from the data for all 1121 clients who fit the same criteria, but whose counselors did not participate. Age at application was treated as a continuous variable; race, marital status, and number of dependents were examined as categorical variables; and financial support, gender, and employment outcome were treated as dichotomous variables. Of the 619 clients examined, 328 (53.0%) were closed in status 26, and 291 (47.0%) were closed in status 28. The numbers were slightly different for the larger group of clients, with 48.2% closed in status 26 and 51.8% closed in status 28. The ages of the smaller group varied from 18 to 65, while the larger group's ages ranged from 18 to 66. The modal client age for both groups was 18 (see Table 4).

Table 4

Ages of the 619 Clients Whose Counselors Participated and of All 1121 Clients

	619 Clients		1121 Clients	
Age	*N*	%	*N*	%
18	57	9.2	89	7.9
19	22	3.6	42	3.7
20	17	2.7	32	2.9
21	14	2.3	28	2.5
22	12	1.9	18	1.6
23	14	2.3	27	2.4
24	12	1.9	23	2.1
25	13	2.1	25	2.2
26	8	1.3	18	1.6
27	10	1.6	13	1.2
28	13	2.1	20	1.8
29	14	2.3	23	2.1
30	9	1.5	18	1.6
31	18	2.9	32	2.9
32	14	2.3	28	2.5
33	14	2.3	24	2.1

34	17	2.7	29	2.6
35	17	2.7	30	2.7
36	19	3.1	31	2.8
37	15	2.4	26	2.3
38	10	1.6	19	1.7
39	10	1.6	22	2.0
40	20	3.2	37	3.3
41	18	2.9	34	3.0
42	21	3.4	33	2.9
43	14	2.3	34	3.0
44	12	1.9	29	2.6
45	12	1.9	27	2.4
46	28	4.5	37	3.3
47	20	3.2	34	3.0
48	18	2.9	33	2.9
49	11	1.8	26	2.3
50	16	2.6	26	2.3
51	7	1.1	22	2.0
52	14	2.3	24	2.1
53	9	1.5	18	1.6
54	9	1.5	21	1.9

55	6	1.0	13	1.2
56	8	1.3	13	1.2
57	5	0.8	6	0.5
58	5	0.8	7	0.6
59	6	1.0	9	0.8
60	3	0.5	5	0.4
61	3	0.5	7	0.6
62	2	0.3	5	0.4
63	1	0.2	1	0.1
65	2	0.3	2	0.2
66	0	0.0	1	0.1

The number of clients of each gender was fairly even in the sample of 619, with 52.3% male and 47.7% female. Likewise, the gender split was relatively even within the larger group of 1121 clients, with 52.5% male and 47.5% female (see Figure 4).

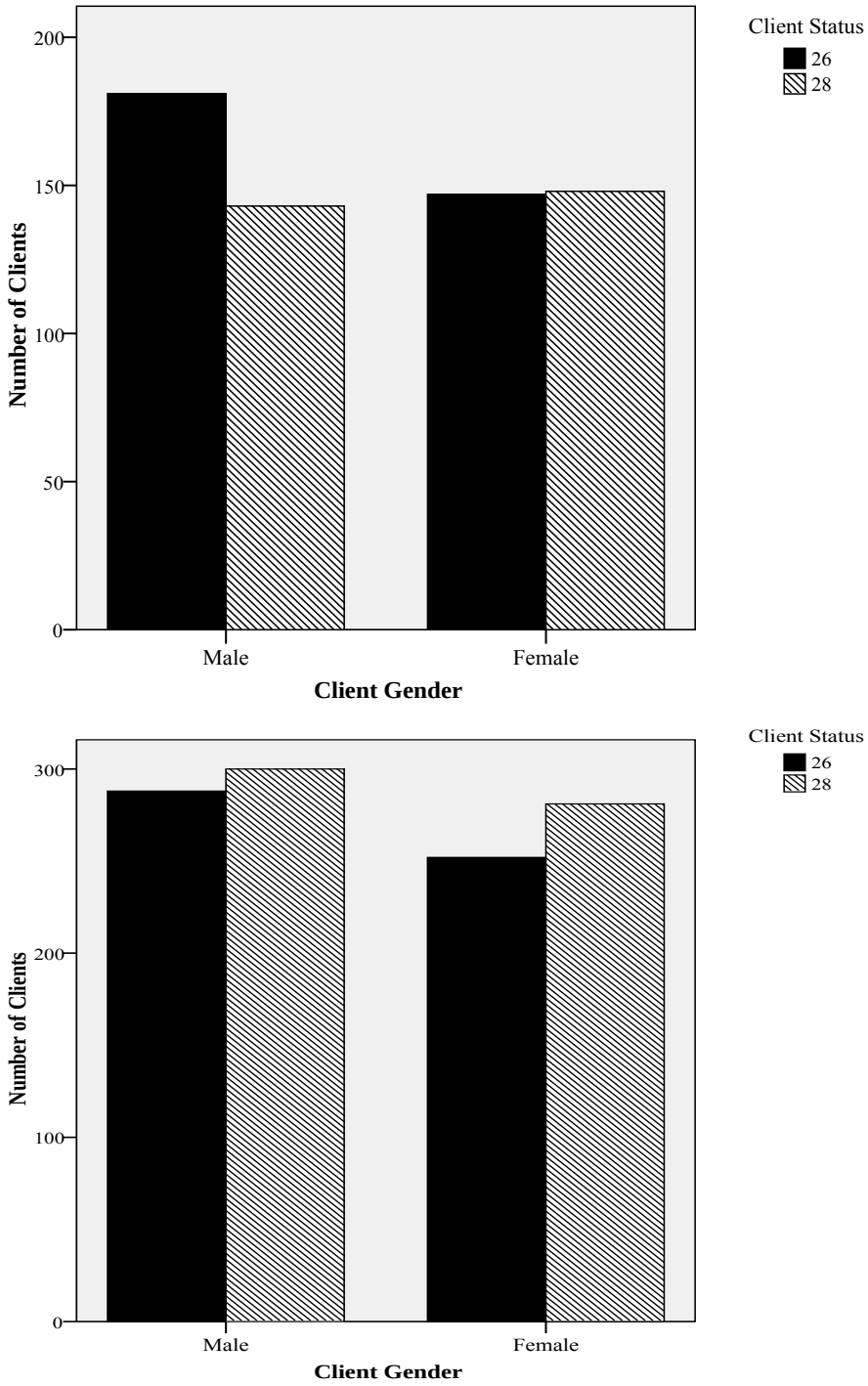

Figure 4. Genders of the sample of 619 clients whose counselors participated in this study (top) compared to the genders of the total group of all 1121 clients (bottom).

Most of the 619 clients (54.4%) included in this study were never married, 20.0% were married, 19.4% were divorced, 5.0% were separated, and 1.1% were widowed. Again, these statistics were similar to the group of 1121 clients, most of whom (54.1%) had never been married, while 19.2% were married, 20.2% were divorced, 5.3% were separated, and 1.2% were widowed.

The sample of 619 clients was primarily Caucasian, with 86.8% of clients being classified as White, 2.7% of clients Black or African American, 2.7% American Indian or Alaska Native, 4.8% Multiracial, 0.6% Asian, 1.6% Hispanic or Latino, and 0.6% Native Hawaiian or Other Pacific Islander. Similar numbers were found among the larger group of 619. A large percentage of clients (84.4%) were White, 3.4% of clients were Black or African American, 1.8% were American Indian or Alaska Native, 6.9% were Multiracial, 0.5% were Asian, 2.3% were Hispanic or Latino, and 0.7% were Native Hawaiian or other Pacific Islander (see Figure 5).

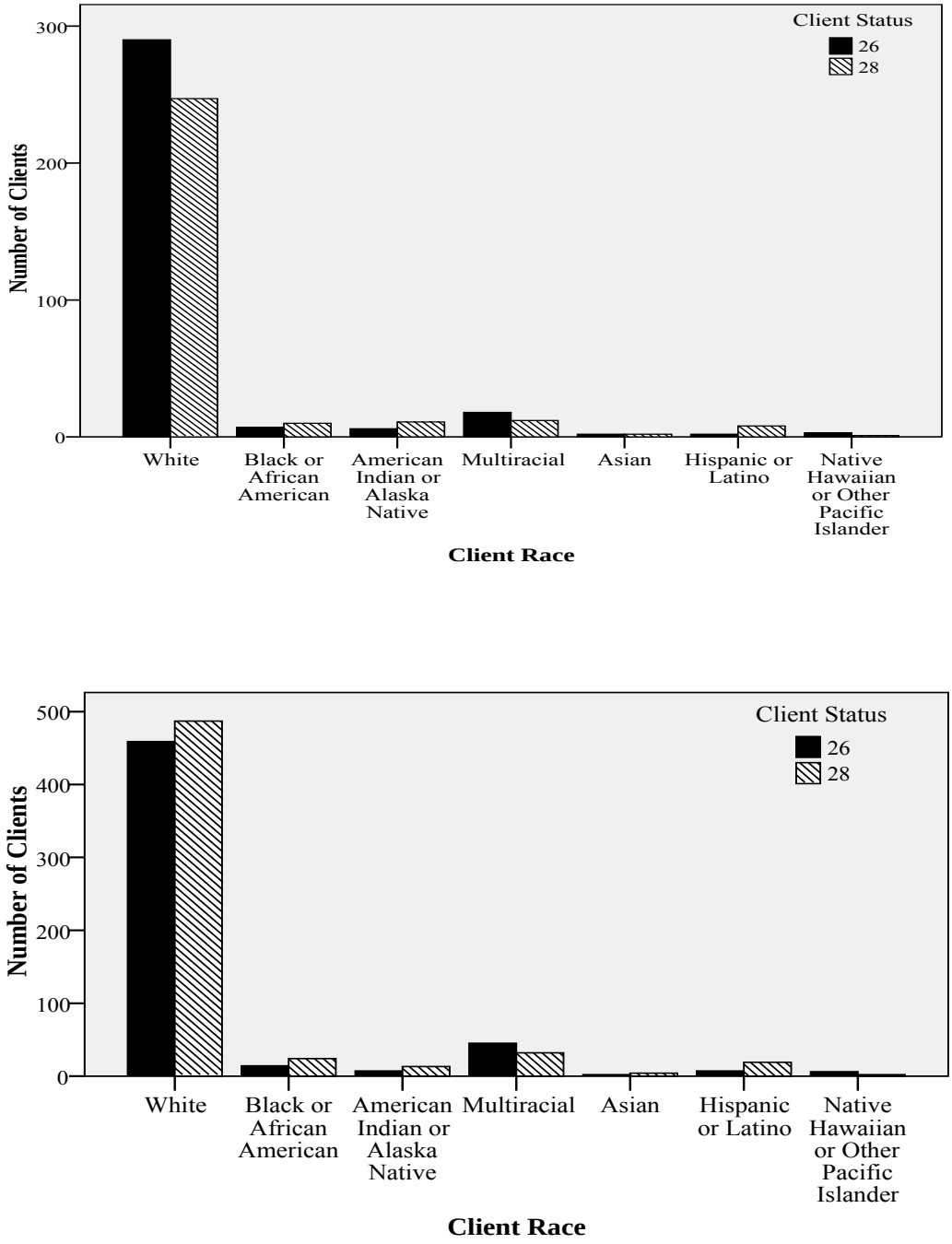

Figure 5. Racial makeup of the sample of 619 clients whose counselors participated in this study (top) compared to the racial makeup of the total group of all 1121 clients (bottom).

Most of the smaller group of 619 clients (72.4%) had no dependents ($M = 0.50$, $SD = 0.99$). Of the remaining clients, 14.7% had 1, 5.8% had 2, 5.0% had 3, 1.6% had 4, 0.3% had 5, and 0.2% had 6 dependents. Likewise, most of the larger group of 1121 clients (71.9%) had no dependents ($M = 0.52$, $SD = 1.00$), while 14.1% had 1, 7.4% had 2, 4.3% had 3, 1.7% had 4, 0.4% had 5, and 0.2% had 6 dependents (see Figure 6). More than half of the smaller group clients (65.7%) were receiving some form of public support at application, while 34.3% were not. Among the larger group of 1121 clients, again more than half of the clients (66.4%) were receiving some form of public support at application, while the other 33.6% were receiving no public funds (see Figure 7).

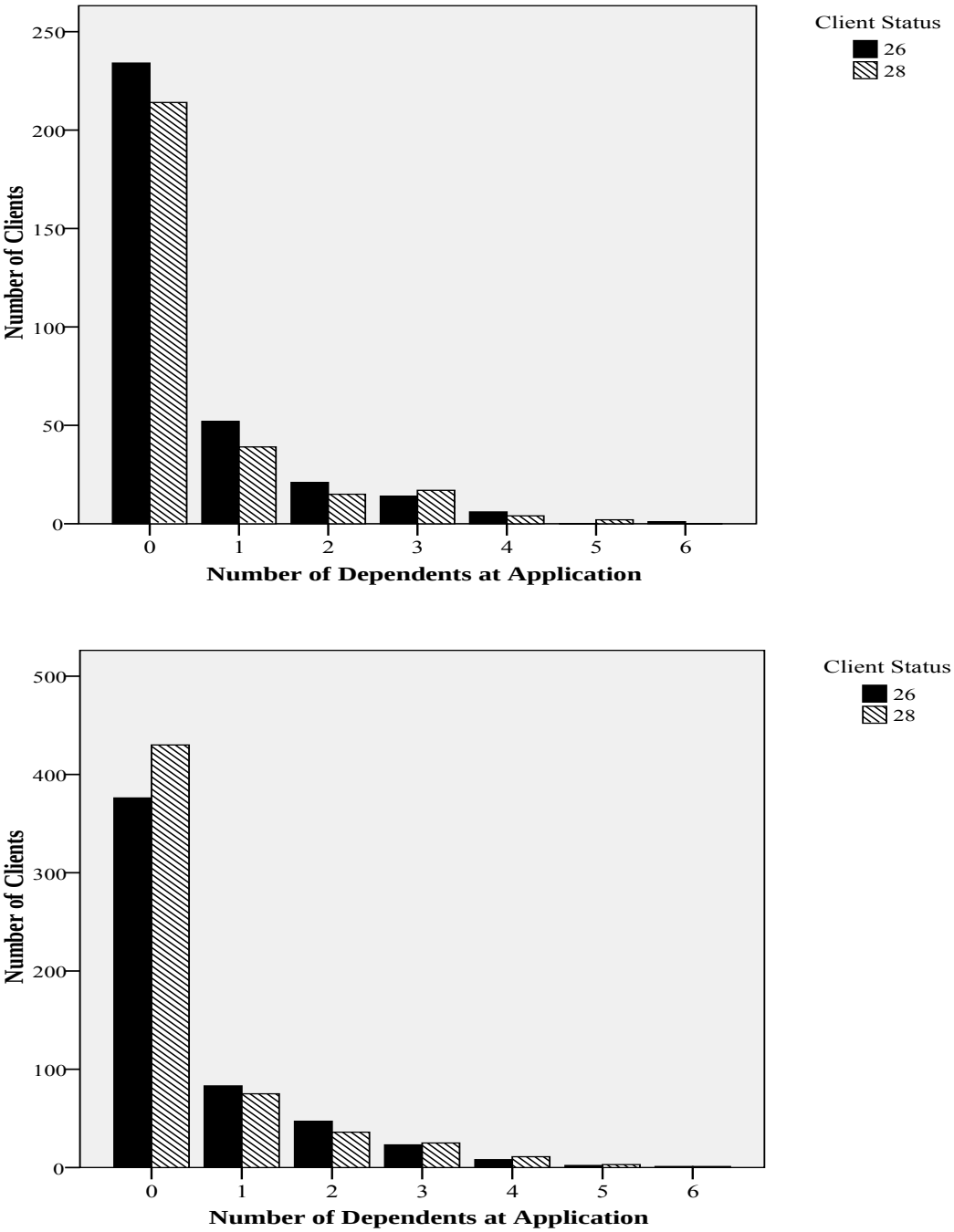

Figure 6. Number of dependents at application for the sample of 619 clients whose counselors participated in this study (top) compared to the number of dependents at application for the total group of all 1121 clients (bottom).

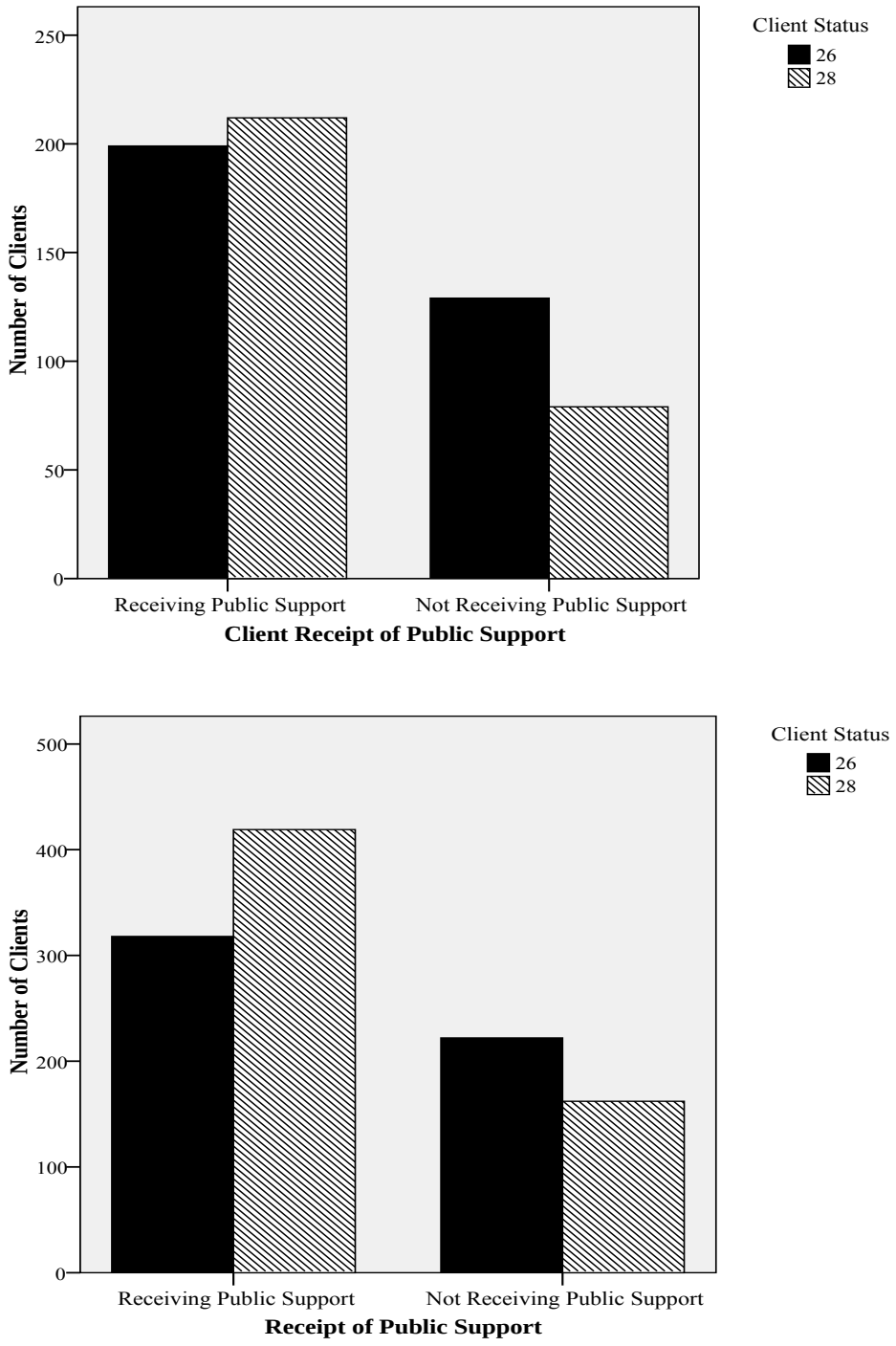

Figure 7. Receipt of public support for the sample of 619 clients whose counselors participated in this study (top) compared to the receipt of public support for the total group of all 1121 clients (bottom).

Among the smaller group of 619 clients, 1.3% had received elementary education (grades one through eight), 16.5% had obtained secondary education without earning a high school diploma, 6.8% had attained a special education certificate or certificate of completion/attendance, and 37.0% were high school graduates or had an equivalency certificate. Looking at clients with postsecondary education, 21.8% (135) had not received a degree, 9.0% (56) had earned an associate degree or a vocational/technical certificate, 6.1% (38) had received a bachelor's degree, and 1.5% had completed at least a master's degree. No clients reported having a complete lack of formal education.

Educational levels among the larger group of 1121 clients ranged from elementary education (1.3% of clients) to master's degree or higher (1.5% of clients). Of the remaining clients, 16.9% had received secondary education without a high school diploma, 9.4% had a special education certificate or certificate of completion/attendance, 34.9% were high school graduates or had an equivalency certificate, 20.7% had obtained some post-secondary education, 9.1% had earned an associate degree or a vocational/technical certificate, and 6.2% had received a bachelor's degree. Like the smaller group of clients, none of the 1121 clients reported entirely lacking formal education (see Table 5).

Table 5

Client Educational Levels

	Sample of 619 Clients		All 1121 Clients	
Educational Level	*N*	%	*N*	%
Elementary Education	8	1.3	15	1.3
Secondary Education With No High School Diploma	102	16.5	189	16.9
Special Education Certificate or Certificate of Completion/Attendance	42	6.8	105	9.4
High School Diploma or Equivalency Certificate	229	37.0	391	34.9
Post-secondary Education	135	21.8	232	20.7
Associate Degree or Vocational/Technical Certificate	56	9.0	102	9.1
Bachelor's Degree	38	6.1	70	6.2
Master's Degree or Higher	9	1.5	17	1.5

Most of the 619 clients (69.9%) were rated as having a significant disability, which is the second highest level of disability ranking. Of the remaining clients, 29.9% were in the most significant group, and 0.2% were in the mildest disability category. Among the larger group of 1121 clients, again most had a significant disability (70.6%), while 29.3% were rated as being at the most significant disability level. One client (0.1%) was rated as disabled (see Figure 8).

The clients' primary disabilities were divided into 19 categories, including blindness and other visual impairments. Disabilities also included deafness, hearing loss, other hearing impairments (Tinnitus, Ménière's disease, etc), deaf-blindness, communicative impairments (expressive/receptive), mobility orthopedic/neurological impairments, manipulation/dexterity orthopedic/neurological impairments, both mobility and manipulation /dexterity orthopedic/neurological impairments, other orthopedic impairments (e.g., limited range of motion), respiratory impairments, general physical debilitation (fatigue, weakness, pain, etc.), and other physical impairments), psychosocial (interpersonal and behavior impairments), and other mental impairments (see Table 6). Secondary disabilities were placed into the same categories as primary disabilities, with the addition of the category "no secondary disability" (see Table 7).

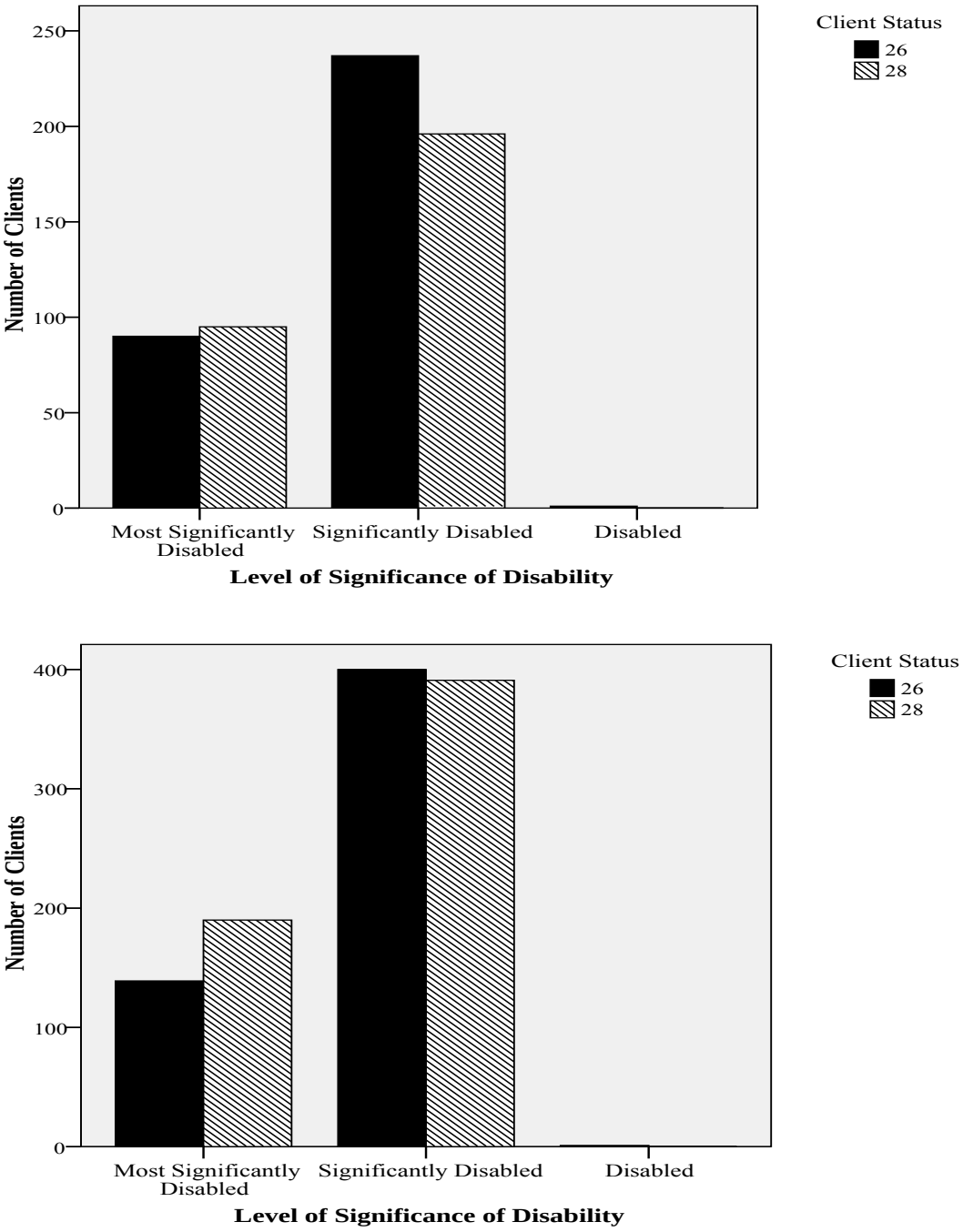

Figure 8. Level of significance of disability among the sample of 619 clients whose counselors participated in this study (top) compared to the level of significance of disability among the total group of all 1121 clients (bottom).

Table 6

Client Primary Disabilities

	Sample of 619		All 1121 Clients	
Disability	*N*	%	*N*	%
Cognitive (Involving Learning, Thinking, and Processing Information)	214	34.6	383	34.2
Psychosocial (Interpersonal and Behavior Impairments)	112	18.1	217	19.4
Mobility Orthopedic /Neurological Impairments	54	8.7	79	7.0
Other Orthopedic Impairments (e.g., Limited Range Of Motion)	45	7.3	100	8.9
Other Mental Impairments	44	7.1	89	7.9
Both Mobility And Manipulation /Dexterity Orthopedic/Neurological Impairments	33	5.3	52	4.6
Manipulation/Dexterity Orthopedic/Neurological Impairments	25	4.0	41	3.7
Other Physical Impairments (Not Listed Above)	23	3.7	42	3.7
General Physical Debilitation (Fatigue, Weakness, Pain, etc.)	18	2.9	42	3.7

Hearing Loss (Primary Communication Auditory)	9	1.5	15	1.3
Blindness	8	1.3	10	0.9
Other Visual Impairments	8	1.3	10	0.9
Communicative Impairments (Expressive/Receptive)	8	1.3	15	1.3
Deafness (Primary Communication Visual)	7	1.1	8	0.7
Respiratory Impairments	6	1.0	7	0.6
Hearing Loss (Primary Communication Visual)	4	0.6	7	0.6
Deafness (Primary Communication Auditory)	1	0.2	2	0.2
Other Hearing Impairments (Tinnitus, Ménière's Disease, etc.)	0	0.0	2	0.2
Deaf-Blindness	0	0.0	0	0.0

Table 7

Client Secondary Disabilities

	Sample of 619		All 1121 Clients	
Disability	N	%	N	%
No Secondary Disability	206	33.3	437	39.0
Psychosocial (Interpersonal and Behavior Impairments)	124	20.0	196	17.5
Cognitive (Involving Learning, Thinking, and Processing Information)	53	8.6	111	9.9
Other Mental Impairments	39	6.3	62	5.5
Other Orthopedic Impairments (e.g., Limited Range Of Motion)	32	5.2	57	5.1
Other Physical Impairments	32	5.2	63	5.6
General Physical Debilitation (Fatigue, Weakness, Pain, etc.)	31	5.0	50	4.5
Manipulation/Dexterity Orthopedic/ Neurological Impairments	21	3.4	33	2.9
Mobility Orthopedic/ Neurological Impairments	20	3.2	32	2.9
Other Visual Impairments	16	2.6	19	1.7
Both Mobility And Manipulation /Dexterity Orthopedic/ Neurological Impairments	15	2.4	19	1.7
Hearing Loss (Primary Communication Auditory)	11	1.8	15	1.3

Communicative Impairments (Expressive/Receptive)	8	1.3	10	0.9
Respiratory Impairments	8	1.3	11	1.0
Blindness	1	0.2	3	0.3
Hearing Loss (Primary Communication Visual)	1	0.2	1	0.1
Other Hearing Impairments (Tinnitus, Ménière's Disease, etc.)	1	0.2	2	0.2
Deafness (Primary Communication Visual)	0	0.0	0	0.0
Deafness (Primary Communication Auditory)	0	0.0	0	0.0
Deaf-Blindness	0	0.0	0	0.0