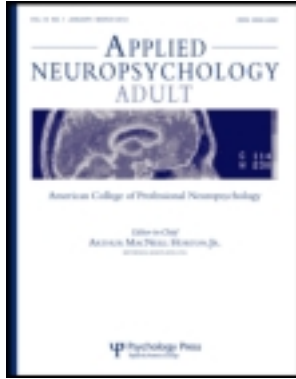


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### The Use of Psychometrists in Clinical Neuropsychology: History, Current Status, and Future Directions

Michael Malek-Ahmadi <sup>a</sup>, Tom Erickson <sup>b</sup>, Antonio E. Puente <sup>c</sup>, Neil Pliskin <sup>d</sup> & Rachel Rock <sup>c</sup>

<sup>a</sup> Banner Sun Health Research Institute, Sun City, Arizona

<sup>b</sup> Harborview Medical Center, Seattle, Washington

<sup>c</sup> Department of Psychology, University of North Carolina Wilmington, Wilmington, North Carolina

<sup>d</sup> University of Illinois Chicago, Chicago, Illinois

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# The Use of Psychometrists in Clinical Neuropsychology: History, Current Status, and Future Directions

Michael Malek-Ahmadi

*Banner Sun Health Research Institute, Sun City, Arizona*

Tom Erickson

*Harborview Medical Center, Seattle, Washington*

Antonio E. Puente

*Department of Psychology, University of North Carolina Wilmington,  
Wilmington, North Carolina*

Neil Pliskin

*University of Illinois Chicago, Chicago, Illinois*

Rachel Rock

*Department of Psychology, University of North Carolina Wilmington,  
Wilmington, North Carolina*

In recent years, the National Academy of Neuropsychology and other professional neuropsychological organizations have published a number of articles and position papers regarding the use, education, and training of psychometrists (“technicians”). Although these documents provide guidelines for the suggested qualifications and training procedures of psychometrists, none make any mention of the need for a standardized credentialing process, which is commonly required of technicians in similar fields, especially in medical settings. Given the recent changes in Current Procedural Terminology codes used to bill for neuropsychological services and the interpretation of legislation disallowing the use of psychometrists in New York, the need for a standard credential for psychometrists is apparent. This article will review the history and current use of psychometrists in clinical neuropsychology and highlight the need and rationale for the credentialing of psychometrists.

*Key words:* credentialing, certification, neuropsychology, psychological assistant, psychometrician, psychometrist, technician

During the last several years, the role of clinical neuropsychology and those individuals who provide professional services, both doctorate- and

nondoctorate-level personnel, has increased exponentially. Whereas some focus has been placed on reviews of practices (e.g., Sweet, Peck, Abramowitz, & Etzweiler, 2002) and tests (e.g., Camara, Nathan, & Puente, 2000), relatively little has been presented on the use of nondoctorate personnel in the provision of

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Address correspondence to Michael Malek-Ahmadi, Banner Sun Health Research Institute, 10515 W. Santa Fe Dr., Sun City, AZ 85351. E-mail: michael.ahmadi@bannerhealth.com

neuropsychological services. The purpose of this article is to address such paucity by providing the history, policy, education and training, certification, and recent challenges to the use of nondoctorate personnel.

## HISTORY OF PSYCHOMETRY

C. E. Seashore addressed the need for psychology technicians (also called psychometrists, psychometricians, and psychological assistants) as early as 1912. Although Seashore describes how a professional psychologist may act as a technician in an interdisciplinary treatment setting, the model that is proposed is somewhat analogous to the current professional/technical model in neuropsychology. Seashore's description of the psychologist's scope of practice encompasses the activities of the current-day psychologist and technician but also states that "as technician, the psychologist is at the command of the superintendent and the other members of the staff for the routine work for which he is peculiarly qualified" (p. 474). In contrast, modern psychological practice clearly delineates the roles of the psychologist and technician in that the technician is subordinate to the psychologist while the psychologist is an independent practitioner uniquely qualified to provide direct care and treatment. This model is widely used to this day and has been utilized very efficiently since its adoption in the practice of clinical neuropsychology (DeLuca & Putnam, 1993).

However, the actual use of psychometrists by neuropsychologists dates back to the late 1930s, and William A. Hunt is credited with first utilizing a psychometrist in the Navy during World War II. The practice of using psychological technicians was then used by Ward C. Halstead at the University of Chicago in the 1940s. Ralph M. Reitan used this procedure in the Army at Mayo General Hospital in 1945 and at Indiana University Medical School at the inception of the Neuropsychology Laboratory between 1950 and 1951 (DeLuca, 1989).

The use of psychometrists began to increase during the 1960s and 1970s as clinical neuropsychology became a distinct subdiscipline of clinical psychology. Using a psychometrist in the field of neuropsychology has been an established standard for more than three decades (DeLuca, 1989). Brodsky and Mixon (1969) reported that 16.5% of clinical psychology service providers surveyed used psychometrists and noted that "a growing role is being established in clinical psychology for the psychological technician" (p. 223). By 1986, 50% of survey respondents stated that they used psychometrists in their practice (Serenty, Dean, Gray, & Hartlage, 1986). DeLuca and Putnam (1993) found that 53% of neuropsychological service providers utilized psychometrists

in the delivery of services, while Sweet and Moberg (1990) found that 77.2% of American Board of Clinical Neuropsychology diplomats endorsed the professional/technical model in clinical neuropsychology. The number of psychological technicians currently used is even greater, as Sweet et al. (2002) found that of the 1,352 neuropsychologists who use psychological technicians in their practices, nondoctoral-level technicians were the most commonly (68.5%) employed testing assistants.

Cohen (1974) delineated the differences in job functions between a psychological assistant and psychologist noting "technicians can indeed be helpful and significant in the rendering of psychological services to clients and patients" (p. 222). Some in the field believe the use of psychometrists is a very important contribution to society on behalf of behavioral science (American Educational Research Association [AERA], American Psychological Association [APA], & National Council on Measurement in Education, 1999; Walsh & Betz, 1995). Others, however, are more hesitant to employ technicians. The New York State Department of Education (NYSDE) prohibited the use of test technicians who were thought to be independently practicing psychology (Pliskin, 2006). This situation is further discussed later in the article.

The practice of doctoral-level health care providers employing the use of nondoctoral-level technicians is used in several other health care fields besides neuropsychology. Medical doctors, for example, use electroencephalogram and radiology technicians (Axelrod et al., 2000). The Allied Health Professional Personnel Training Act of 1966, a federal government program, condones the application of a "team concept" when providing health care services. Likewise, the National Commission on Community Health Services asserted that the use of technicians is the "single most promising method" of providing suitable health care personnel (DeLuca, 1989, p. 7). By using psychological technicians, neuropsychologists are able to see more patients and become more engaged in therapy and consultation (DeLuca, 1989). In addition, the use of technicians allows referred patients to be evaluated in a sufficient amount of time. DeLuca and Putnam (1993) point out that using a psychometrist is cost-effective and increases psychologists' salaries by 89%. Sweet et al. (2002) also noted that the average time of administration for a neuropsychological battery is approximately 5 hours. This does not include the scoring of tests, interpretation of results, integration of other medical information, and report writing. All of these activities add substantially to the time a neuropsychologist spends assessing one patient, which makes the use of psychometrists advantageous—and often necessary—for neuropsychological practices with high patient volumes. Although many psychologists use psychometrists,

a large percentage does not (Sweet et al., 2002). Likewise, there are many disadvantages and risks associated with employing unlicensed psychometrists. Many government and professional organizations are concerned about insufficient administrator qualifications and test misuse. A committee on Ethical and Professional Standards in the National Association of School Psychologists (NASP) felt that the administrative and scoring tasks require rigorous education in an APA- or NASP-approved graduate program or at least an accredited university's graduate program. The committee felt that the administration and scoring by individuals without these credentials was "unethical professional conduct." The Individuals with Disabilities Education Act is a federal law that states that any standardized test administered to a child must be conducted by trained personnel and in accordance with the publisher's instructions. Some special education laws in certain states also specify that the testing may only be conducted by licensed professionals, which excludes psychological technicians.

Another important factor for a licensed psychologist to consider is the possibility of jeopardizing test security. Psychological technicians are not legally or professionally bound to maintaining test security, which is considered one of the chief responsibilities involved in testing. Studies have also shown that graduate students in training make errors scoring and interpreting the Similarities, Comprehension, and Vocabulary subtests on the Wechsler test. In-training graduate students also failed to record the client's response in a verbatim manner. The researchers calculated that errors on 66% of the trainees' test protocols resulted in variations in the Full-Scale IQ. These errors decrease the validity and reliability of the scores and could result in erroneous placement, eligibility, and classification decisions. Furthermore, when a test is standardized by graduate-level administrators, psychological technicians without the same education could lower the validity and reliability of the test results. Finally, it is unknown if psychological technicians are aware of the importance of building and maintaining rapport with clients throughout testing, as well as how to interpret certain key behaviors in children, such as attention to tasks, frustration tolerance, and reflectivity (Hall, Howerton, & Bolin, 2005). However, the supervising psychologist is ultimately responsible for ensuring that these and other clinical skills are properly taught to and utilized by psychometrists. Because the psychometrist is an extension of the independently licensed psychologist, standard guidelines (e.g., AERA et al., 1999) apply to education, training, and supervision, among others. According to DeLuca (1989), psychological technicians are used worldwide to administer and score psychological tests. However, Hall et al. (2005) found that the use of technicians

outside of the United States was unclear. They also conducted literature searches on PsycINFO and ERIC databases and yielded little published information on the use of technicians in other countries.

## EDUCATION AND TRAINING OF PSYCHOMETRISTS

Psychometrists are responsible for several tasks related to psychological testing. Psychometrists' duties in clinical practice primarily involve the administration and scoring of neuropsychological tests but also include the recording and/or reporting behavioral observations during the testing session (National Academy of Neuropsychology [NAN] Policy and Planning Committee, 2000). In addition, individuals employed as psychometrists are often responsible for significant amounts of clerical and administrative tasks in a practice (DeLuca, 1989).

The educational background of psychometrists can vary widely as standard criteria for their education do not yet exist. Generally, most of these individuals have at least a bachelor's degree in psychology or another area from an accredited college or university as has been recommended by the APA Division 40 Task Force on Education Accreditation Credentialing (1991), the American Academy of Clinical Neuropsychology (AACN; 1999), and the NAN (Puente, Adams, Barr, Bush, & NAN Policy and Planning Committee, 2006). A bachelor's degree in psychology provides the psychometrist with the basic background in the scientific aspect of psychology, as well as the groundwork, which further training in testing can supplement. Some of the courses the psychometrist would take are Statistics, Psychological Testing, Abnormal Psychology, and Personality Psychology (Division 40 Task Force on Education Accreditation Credentialing, 1991). There is a need to include an undergraduate track for people who wish to be technicians to prepare the individual to receive on-the-job training. Two colleges in Georgia, Georgia College at Milledgeville and Georgia State University, have developed technician training programs (DeLuca, 1989).

There are some benefits of utilizing individuals with only undergraduate degrees as well. The use of a nondoctoral-level technician offers a number of advantages, such as objectivity of assessment (DeLuca & Putnam, 1993). DeLuca (1989) points out that the use of psychometrists minimizes "bias associated with clinical judgment" (p. 13). However, psychologists who use psychological technicians are required to inform clients that an unlicensed person will be administering the tests. In addition, psychologists should discuss the technician's qualifications, function, and role with patients prior to testing (Hall et al., 2005). Psychometrists

usually receive on-the-job training by a neuropsychologist or an experienced psychometrist. There is a chronological process often implemented when training novice psychometrists. The psychometrist first reads the test manuals and memorizes the tests' instructions. The next step is for the individual to observe an experienced psychometrist and then receive one-on-one experience with the advanced psychometrist. The novice psychometrist then presents tests to the experienced trainer and then to less impaired clients. The trainee also learns how to score the tests and receives periodic observations. DeLuca (1989) suggests that training could also include readings and seminars on the assessment process, ethics, and procedures for how to manage extraordinary circumstances. However, it is unknown how extensively and consistently this training process of psychometrists is conducted, suggesting there may be considerable variability in the training and learned skills. This discrepancy warrants the need for measuring the psychometrist's skills via a standardized national credential process similar to the Examination for Professional Practice of Psychology for psychologists (Association of State and Provincial Psychology Boards, 2010).

There are several topics a neuropsychologist should discuss with a novice psychometrist in addition to general training. The supervising neuropsychologist should provide written documentation, indicating that the psychological technician completed the training program. There exist certain ethical issues a psychometrist must also be informed of, including patient confidentiality protection as well as the confidentiality of test materials. Psychometrists need to also be trained to identify suicidal and homicidal insinuations or threats made by clients during testing. They also need to know how to respond to sexually inappropriate and aggressive behavior by clients. It is important for a neuropsychologist to ensure that a psychometrist does not view employment as a technician as an entry into practicing neuropsychology (Division 40 Task Force on Education Accreditation Credentialing, 1991).

Although the current standards for educational criteria and training methods for psychometrists are probably effective in ensuring that competent individuals are administering neuropsychological tests, no standard or uniform criteria currently exist. In addition, there is no formal requirement for the completion of continuing education (CE). However, some facilities require their clinical staff to attain a specified number of CE credits regardless of their credentialing status. This is in contrast to technicians in fields such as radiology and neurology who must matriculate through accredited training programs and maintain a credential to practice for reasons related to competency and protection of the public. Furthermore, these individuals must maintain their credential through the attainment of CE credits. Currently, this is not a

requirement for psychometrists under the supervision of a neuropsychologist. However, given the recent changes in Current Procedural Terminology codes and the interpretation of the Scope of Practice Law in the state of New York, it is apparent that there is a significant value for psychometrists to be credentialed.

Some states, such as Arkansas and North Carolina, have passed legislation that does allow for psychometrists to be used. In many cases, the psychometrist must meet a certain set of educational criteria and maintain registration with their particular state. Several states require psychometrists (who assess children as part of educational evaluations) to be "registered." However, with the exception of New York, which remains a highly contested situation, there are no states that have legislation explicitly restricting the use of psychometrists in clinical practice.

Psychometrists are an integral part of many neuropsychologists' practices; however, the educational and experiential background of psychometrists can vary widely among practices. Although there are recommended guidelines (AACN, 1999; Division 40 Task Force on Education Accreditation Credentialing, 1991; Puente et al., 2006), the requisite training and education of psychometrists is ultimately decided by the supervising neuropsychologist. From an ethical standpoint, the use of psychometrists poses no threat to neuropsychologists so long as a high standard of quality is maintained and psychometrists are properly supervised (APA, 1981). Until recently, a standard credential or credentialing process for psychometrists did not exist. The Certified Specialist in Psychometry (CSP) credential was developed to establish a standardized credentialing process for psychometrists by setting forth minimum educational and experiential requirements.

#### DEVELOPMENT AND GOALS OF PSYCHOMETRIST CERTIFICATION

A group of psychometrists developed a psychometrist certification exam that entailed two phases. In the first phase, they determined the main tasks psychometrists performed and the information necessary to effectively complete them. The second phase involved selecting the actual questions for the exam. The first CSP exam was administered in November 2005 and is composed of 120 multiple-choice questions regarding the responsibilities of a psychometrist. Upon passing the exam, psychometrists must obtain at least 12 CE units every 2 years; 2 of these units must concern ethics. Furthermore, they are added to an online registry, which includes their state of practice and the year they were awarded certification. The primary goal of the CSP is to assure neuropsychologists and clients that psychometrists are

knowledgeable and can competently administer and score the tests. The CSP also shows that the psychometrist has received the required education and training. This will help neuropsychologists promote their services, increase their time for other doctoral-level duties, and decrease the time they need to spend training psychometrists. The CSP also serves to protect their liability and provide more support for court testimonies (Board of Certified Psychometrists, 2010). Although there is no direct evidence indicating that a psychometrist's credentials increase or decrease a neuropsychologist's liability in legal settings, it is conceivable that assessments performed by a psychometrist could be called into question with regard to their education, training, and credentialing. Given the lack of mandate for certification or licensure of psychometrists, this could put neuropsychologists in a vulnerable position should these issues arise.

Ball and Peck (2010) cite a recent case in Virginia in which a challenge brought against a neuropsychologist's assessment was overturned. In this case, the tests were administered by a psychometrist; however, the challenge was based on a claim that tests that were ordered were not administered and that many of the tests themselves were not valid and should not be allowed as evidence. A group of Virginia neuropsychologists successfully defeated this challenge by citing the position statements of several neuropsychological organizations (NAN, APA Division 40, AACN) that support the use of psychometrists in clinical neuropsychology. The Virginia neuropsychologists' argument was strengthened by stating that the use of psychometrists is analogous to the use of electrocardiogram technicians in cardiology, where a diagnostic test is performed by a clinical extender and the results are interpreted by a physician.

#### NEW YORK STATE SCOPE OF PRACTICE LAW

New York's 2003 Scope of Practice Law has been interpreted in a way that disallows the use of psychometrists and has negatively affected neuropsychologists and psychometrists. Many neuropsychologists are now unable to provide as many services, and several psychometrists lost their jobs. This law has also caused clients to have to wait a significant amount of time before being assessed by a neuropsychologist after the initial referral. There are 12 states that explicitly allow technicians and 20 that use vague language in regard to employing technicians. The law has set a precedent for restricting the use of technicians in other states so as many as 20 states could follow in New York's footsteps. In addition, the law could also affect payment policies (Pliskin, 2006).

The New York Scope of Practice Law has been problematic because its interpretation by the NYSDE has

been that nonlicensed personnel may not engage in activities that fall under a psychologists' scope of practice. These activities include the administration and scoring of psychological tests (Festa, Barr, & Pliskin, 2010). Although this interpretation runs counter to the currently accepted professional/technical model in clinical neuropsychology, it does highlight the need for nondoctoral personnel to be credentialed in some way. It is possible that the CSP credential could fill this void and ultimately be recognized by the NYSDE and allow for psychometrists to be used in clinical practice once again. At the writing of this article, there were indications that the State of New York was moving forward in allowing the use of psychometrists in a limited sense. However, despite a spirited and cohesive attempt by neuropsychologists in New York State and support from the Division of Clinical Neuropsychology of both the APA and NAN, it is unclear what the outcome will be at this point.

#### ALABAMA SITUATION

Alabama currently requires "psychological technicians" to be licensed. These individuals must have a master's degree in psychology, with their graduate courses following a specific sequence. In addition, they must accrue at least 500 hours, or 6 months, of supervision to become licensed. However, psychological technicians in Alabama not only administer and score the tests, but they also interpret the tests' results in vocational and educational assessments. Furthermore, they play a larger role in clinical and behavioral assessment. Still, they cannot practice independently and must be supervised by a licensed psychologist (Alabama Board of Examiners in Psychology, 2008). Although the psychological technician designation in Alabama allows for a broader scope of practice than is typically allowed of psychometrists, the designation underscores the necessity for nondoctoral personnel to hold some type of credential. When comparing psychometrists to their technician/technologist counterparts in other medical fields, the need for a psychometrist credential may be necessary to bring the neuropsychologist/psychometrist model in line with other professional/technical models used in several medical fields (Festa et al., 2010).

#### SUMMARY

As health care has expanded, the role of ancillary personnel has grown. However, the role of such personnel has actually been part of psychology for almost as long as psychology has been in existence. This is of particular importance to clinical neuropsychology given the field's growth and advancement during the last three decades. With this growth and advancement, the value and

importance of using psychometrists in clinical practice have increased accordingly. What is unclear is their training, registration, certification, and credentialing. To address this issue, a collaborative effort is needed on the parts of the neuropsychologist and psychometrist professional organizations to come to a consensus on how and to what extent psychometrists should be identified and credentialed. Ultimately, the implementation of a standard identification and credential for psychometrists will help make clinical neuropsychology more analogous to other medical fields that use clinical extenders. Increased focus on these issues will likely result in greater acceptance by the larger health care community and uniformity within clinical neuropsychology.

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