Training Students with Disabilities in Testing and Assessment

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Barriers to Training in Psychological Testing and Assessment

Among the many barriers to graduate training in psychological testing and assessment experienced by trainees with disabilities is the inability to obtain and utilize test manuals and instruments in accessible formats (Kemp, Chen, Erickson, & Friesen, 2003). Additionally, some trainees may also be unable to administer and score measures following the standardized protocols due to physical mobility issues, sensory deficits and/or cognitive limitations. Although trainees with disabilities may not be able, due to their functional limitations, to administer some assessment measures taught in graduate psychology programs, familiarity with these materials and methods is an essential component of graduate training and professional preparation. All trainees must be familiar with assessment and the principles of testing in order to:

1. Complete the required graduate coursework.
2. Be competitive for training placements such as practicum and internship.
3. Pass National and State licensure examinations.
4. Secure competitive employment.
5. Be knowledgeable consumers of assessment information generated by other psychologists (Gold & De Piano, 1992; Krishnamurthy et al., 2004).

While attention has been given to the modification of test administration procedures for clients with disabilities (American Educational Research Association, American Psychological Association, and National Counsel on Measurement Education 1999; Fischer, 1994; Sandoval 1998), significantly less has been written regarding the modification of these procedures for test administrators with disabilities. An examination of the professional psychological literature across multiple databases (e.g., PsycInfo, PsycNet, Psychology and Behavioral Sciences Collection, Professional Development Collection, PsycARTICLES, Social Science Abstracts, Academic Search Premier,

Google Scholar, and Proquest) indicates a marked absence of information that directly addresses testing accommodations for psychology trainees with disabilities. Additionally, preeminent graduate training programs for persons with disabilities (e.g., Gallaudet University's clinical psychology program) report a lack of formal instructional materials regarding accommodations for their trainees who are Deaf or hard of hearing. At present, resources to guide trainees and trainers in developing reasonable accommodations are scarce.

Knowledge and understanding of assessment content, process, and interpretation is fundamental to the training of any psychologist. As stated by the APA Education Directorate, Office of Program Consultation and Accreditation (2007), in Domain D of the Guidelines and Principles for Accreditation of Programs in Professional Psychology, "The program avoids any actions that would restrict program access on grounds that are irrelevant to success in internship training or a career in professional psychology" (p. 15). Therefore, all trainees – including those with disabilities – should be afforded minimum training, or declarative knowledge, in assessment. However, if the goal of training includes operational knowledge of assessment such as the case in Clinical Psychology programs (i.e., if the student will use assessment in the future as part of routine professional practice), trainers and trainees must address several important issues before making an informed final decision. Please see below for a more detailed discussion of declarative and operational knowledge.

Disability Accommodation as a Legal Issue

As stated in the introduction of the Handbook, a lack of understanding about disability laws, particularly the Americans with Disabilities Act (ADA) and the Americans with Disabilities Amendment Act (ADAAA), is often at the heart of concerns about how and when to offer accommodation for assessment requirements. Consequently, the Handbook will address relevant disability laws.

A variety of Federal and State laws regulate the treatment of individuals with disabilities in education and in the training of professional psychologists. For example, long before the ADA, the Rehabilitation Act of 1973 mandated nondiscrimination in programs receiving Federal funding, either directly or through subcontracts. Thus, virtually all universities in the United States, public and private, are prevented from discriminating against trainees with disabilities in the admissions process and must accommodate those trainees in their educational endeavors (Crewe, 1994). The ADA was initially passed in 1990 with an Amendment Act (ADAAA) added in 2008. The ADA is essentially a civil rights law for individuals with documented disability that prohibits discrimination on the basis of disability in employment, state and local governments, public accommodations, commercial facilities, transportation, and telecommunications. Those covered under the ADA include persons who have a physical, sensory and/or mental impairment that substantially limits one or more major life activities; a person who has a history or record of such an impairment; or a person who is perceived by others as having such an impairment (see http://www.ada.gov/cguide.htm#anchor62335). Within ADA, several critical constructs are often overlooked and misunderstood; that of ‘essential functions,’ ‘reasonable accommodations,’ and 'undue hardship'. Each term is defined below.

Essential Functions: Essential Functions are the basic job duties that an employee must be able to perform, with or without reasonable accommodation. Employers must/should carefully examine each job to determine which functions or tasks are essential to performance. This is particularly important before taking an employment action such as recruiting, advertising, hiring, promoting or firing (see http://www.eeoc.gov/facts/ada17.html).

Reasonable Accommodations: Reasonable Accommodations include any changes in the work environment or in the way things are customarily done that enables an individual with a disability to enjoy equal employment opportunities and they cannot be deemed to create undue hardship for others.

Undue Hardship: Undue Hardship means significant difficulty or expense and reflects the resources and circumstances of a particular employer in relationship to the cost or difficulty of providing a specific accommodation. Undue Hardship refers not only to financial difficulty, but to reasonable accommodations that are unduly extensive, substantial, or disruptive, or those that would fundamentally alter the nature or operation of the business (see http://www.eeoc.gov/policy/docs/accommodation.html#general).

Ethical Issues Related to Graduate Admissions and Training

Before one can address issues of accommodation, a training program must first admit trainees with disabilities. Importantly, biases may exist, particularly regarding assessment-related training, that allow training programs to dissuade potential

applicants or create barriers to their acceptance. Biases may be financial, structural or attitudinal. Bias may reflect a lack of understanding about the needs and capabilities of persons with disabilities. There may be a tendency, by some, to avoid the perceived burden associated with training a person with a disability.

Training programs that make biased acceptance decisions are, in essence, discriminating on the basis of the applicant's disability and are in violation of ADA and our own ethical code. According to the American Psychological Association's Ethical Principles (APA, 2002), Principle E: Respect for People's Rights and Dignity, psychologists respect the dignity and worth of all people. More specifically,

> Psychologists are aware of and respect cultural, individual, and role differences, including those based on age, gender, gender identity, race, ethnicity, culture, national origin, religion, sexual orientation, disability, language, and socioeconomic status and consider these factors when working with members of such groups.

It is most appropriate for training programs to consider applicants based on the merits of their application, though it could conceivably be argued that giving special consideration to disadvantaged groups, like persons with disabilities, is appropriate given their under-representation among practicing psychologists. For more complete discussions of disability-related bias and its training implications, the reader is referred to the additional references provided (see Hahn 1985; Hahn, 1993; Olkin 1999).

Once a student has been admitted for training, the program has an obligation to provide training that is consistent with that received by other trainees in the program. According to section 7.01 (Design of Education and Training Programs) of the APA Ethics Code (APA, 2002), 3

> Psychologists responsible for education and training programs take reasonable steps to ensure that the programs are designed to provide the appropriate knowledge and proper experiences, and to meet the requirements for licensure, certification, or other goals for which claims are made by the program.

The default condition should be one in which trainees with disabilities participate in graduate assessment courses with accommodations (if needed), as opposed to excluding trainees from assessment courses because of limitations in completing some of the course requirements.

Competency in Psychological Assessment and Testing

Psychological assessment is considered an essential function of psychology and is defined as a complex, integrative and conceptual activity that is a central component of clinical psychology by the National Council of Schools and Programs of Professional Psychology's (NCSPP) Developmental Achievement Levels, one of the first competency-based models for training in professional psychology (Krishnamurthy et al., 2004). The competency of Assessment is comprised of four domains: 1) interviewing and relationships, 2) case formulation, 3) psychological testing, and 4) ethics and professionalism (see Table below). Each domain has been operationalized in the Developmental Achievement Levels (DALs) document by the National Council of Schools and Programs in Professional Psychology (NCSPP, 2007) by specific tasks and outcomes across the dimensions of knowledge (K), skills(S), and attitudes (A). In addition to identifying specific competencies, the DALS document delineates levels of competency expected at the beginning of practicum, pre-doctoral internship and completion of doctorate degree (NCSPP, 2007). Trainers and trainees with disabilities

would be well advised to review this document carefully when designing and/or requesting accommodations.

Psychological Testing			
K	1. Basic knowledge of psychometric test and measurement theory (e.g., test construction, validity, reliability) 2. Basic knowledge of model of assessment/strategy for assessment.	1. Knowledge of constructs and theories underlying tests and testing methods 2. Knowledge of strengths, weaknesses and limits of applicability of standard intellectual and personality measures 3. Knowledge of the methods of norming tests and implications for test usage with diverse populations 4. Knowledge of constructs and theories underlying psychological tests and psychological testing methods	1. Advanced knowledge of strengths, weaknesses and appropriateness of a broad range of psychological tests across a wide variety of individuals (diversity, psychopathology, development, and social context)
S	1. Basic foundation skills when performing psychological testing (e.g., administration, scoring, guided interpretation) 2. Ability to understand and convey results from individual tests	1. Ability to administer and score intellectual and personality measures, and to begin the process of integrated interpretation, under supervision 2. Ability to identify appropriate measures and sources of information for referral questions in order to answer the questions 3. Ability to identify and adapt assessment methods for unique individuals and systems, with supervision 4. With supervision, ability to use critical thinking in evaluating all sources of data in order to prepare an integrative report and offer feedback	1. Ability to choose, administer, score and interpret tests, appropriate to the referral question, with increasing levels of autonomy
A	1. Respectful objectivity and inquiry when conducting an assessment	1. Respect for value of psychological testing and assessment	1. Commitment to looking at the short-term and long-term usefulness of one's assessment work 2. Willingness to develop competency in administration and interpretation of new or revised tests that the psychologist intends to incorporate into own practice

Similarly, APA more recently published competency benchmarks for the practice of professional psychology (Fouad et al., 2009) which includes psychological assessment as a functional competency, described by behavioral anchors for various trainee developmental levels. Under the assessment domain, the following skills proficiencies are included: Measurement and Psychometrics, Evaluation Methods, Application of Methods, and Diagnosis. These benchmarks may also be helpful for trainees and trainers in

determining the particular proficiencies identified by APA for assessment competency across different level of training.

Functional Competencies Assessment–Assessment and diagnosis of problems, capabilities and issues associated with individuals, groups, and/or organizations.		
Developmental Level		
A. Measurement and Psychometrics		
Readiness for Practicum	Readiness for Internship	Readiness for Entry to Practice
Essential Component:	Essential Component:	Essential Component:
Basic knowledge of the scientific, theoretical, and contextual basis of test construction and interviewing	Selects assessment measures with attention to issues of reliability and validity	Independently selects and implements multiple methods and means of evaluation in ways that are responsive to and respectful of diverse individuals, couples, families and groups and context
Behavioral Anchor: • Demonstrates awareness of the benefits of standardized assessment • Demonstrates knowledge of the construct(s) being assessed • Evidences understanding of basic psychometric constructs such as validity, reliability, and test construction	Behavioral Anchor: • Identifies appropriate assessment measures for cases seen at practice site • Routinely consults with supervisor regarding selection of assessment measures	Behavioral Anchor: • Demonstrates awareness and competent use of culturally sensitive instruments, norms • Seeks consultation as needed to guide assessment • Demonstrates limitations of assessment data clearly reflected in assessment reports
B. Evaluation Methods		
Readiness for Practicum	Readiness for Internship	Readiness for Entry to Practice
Essential Component:	Essential Component:	Essential Component:
Basic knowledge of administration and scoring of traditional assessment measures, models and techniques, including clinical interviewing and mental status exam	Awareness of the strengths and limitations of administration, scoring and interpretation of traditional assessment measures as well as related technological advances	Independently understands the strengths and limitations of diagnostic approaches and interpretation of results from multiple measures for diagnosis and treatment planning
Behavioral Anchor: • Accurately and consistently administers and scores various assessment tools in non-clinical (e.g. course) contexts • Demonstrates knowledge of initial interviewing (both structured and semi-structured interviews, mini-mental status exam)	Behavioral Anchor: • Demonstrates intermediate level ability to accurately and consistently select, administer, score and interpret assessment tools with client populations • Collects accurate and relevant data from structured and semi-structured interviews and mini-mental status exams	Behavioral Anchor: • Accurately and consistently selects, administers, and scores and interprets assessment tools with clinical populations • Selection of assessment tools reflects a flexible approach to answering the diagnostic questions • Comprehensive reports include discussion of strengths and limitations of assessment measures as appropriate • Interview and report leads to formulation of a diagnosis and the development of appropriate treatment plan

C. Application of Methods		
Readiness for Practicum	Readiness for Internship	Readiness for Entry to Practice
Essential Component:	Essential Component:	Essential Component:
Knowledge of measurement across domains of functioning and practice settings	Selects appropriate assessment measures to answer diagnostic question	Independently selects and administers a variety of assessment tools and integrates results to accurately evaluate presenting question appropriate to the practice site and broad area of practice
Behavioral Anchor: • Demonstrates awareness of need to base diagnosis and assessment on multiple sources of information • Demonstrates awareness of need for selection of assessment measures appropriate to population/ problem	Behavioral Anchor: • Selects assessment tools that reflect awareness of patient population served at a given practice site • Regularly selects and uses appropriate methods of evaluation • Demonstrates ability to adapt environment and materials according to client needs (e.g., lighting, privacy, ambient noise)	Behavioral Anchor: • Independently selects assessment tools that reflect awareness of client population served at practice site • Interprets assessment results accurately taking into account limitations of the evaluation method • Provides meaningful, understandable and useful feedback that is responsive to client need
D. Diagnosis		
Readiness for Practicum	Readiness for Internship	Readiness for Entry to Practice
Essential Component:	Essential Component:	Essential Component:
Basic knowledge regarding the range of normal and abnormal behavior in the context of stages of human development and diversity	Applies concepts of normal/abnormal behavior to case formulation and diagnosis in the context of stages of human development and diversity	Utilizes case formulation and diagnosis for intervention planning in the context of stages of human development and diversity

(table continues below)

F. Communication of Findings		
Readiness for Practicum	Readiness for Internship	Readiness for Entry to Practice
Essential Component:	Essential Component:	Essential Component:
Awareness of models of report writing and progress notes	Writes assessment reports and progress notes	Communication of results in written and verbal form clearly, constructively, and accurately in a conceptually appropriate manner
Behavioral Anchor: • Demonstrates this knowledge including content and organization of test reports, mental status examinations, interviews	Behavioral Anchor: • Writes a basic psychological report • Demonstrates ability to communicate basic findings verbally • Reports reflect data that has been collected via interview	Behavioral Anchor: • Writes an effective comprehensive report • Effectively communicates results verbally • Reports reflect data that has been collected via interview and its limitations
Behavioral Anchor: • Identifies DSM criteria • Describes normal development consistent with broad area of training	Behavioral Anchor: • Articulates relevant developmental features and clinical symptoms as applied to presenting question • Demonstrates ability to identify problem areas and to use concepts of differential diagnosis	Behavioral Anchor: • Treatment plans incorporate relevant developmental features and clinical symptoms as applied to presenting problem • Demonstrates awareness DSM and relation to ICD codes • Regularly and independently identifies problem areas and makes a diagnosis
E. Conceptualization and Recommendations		
Readiness for Practicum	Readiness for Internship	Readiness for Entry to Practice
Essential Component:	Essential Component:	Essential Component:
Basic knowledge of formulating diagnosis and case conceptualization	Utilizes systematic approaches of gathering data to inform clinical decision-making	Independently and accurately conceptualizes the multiple dimensions of the case based on the results of assessment
Behavioral Anchor: • Demonstrates the ability to discuss diagnostic formulation and case conceptualization • Prepares basic reports which articulate theoretical material	Behavioral Anchor: • Presents cases and reports demonstrating how diagnosis is based on case material	Behavioral Anchor: • Independently prepares reports based on • Administers, scores and interprets test results • Formulates case conceptualizations incorporating theory and case material

**Please, note, that the above benchmarks are undergoing another set of revisions with specific benchmarks still in process. A review of those proposed changes suggest that the competencies remain very much the same in content with the changes being made to the groupings of functional and foundational competencies. The 7 foundational competencies were sorted into three clusters, labeled Professionalism, Science, and Relationships. The 8 functional competencies were sorted into 4 groups: Application, Research/Evaluation, Education, and Systems. One foundational competency, Interdisciplinary Systems, was moved into the functional category labeled Systems, and combined with Management-Administration and Advocacy (p.1). The goal of the proposed changes was to respond to critics of the current model and to improve its utility.

Implicit Versus Explicit Skills

Historically, most testing procedures have been developed by and for examiners who do not have disabilities. For that reason, many of the skills needed to conduct assessments have not been explicitly defined beyond those provided during graduate training. This is unfortunate, because, in addition to the skills that are readily recognized as essential (e.g., background knowledge of tests and measurement, specific knowledge of and practice with assessment procedures), there are other essential skills that are implicit in the assessment process (e.g., psychomotor skills needed to handle materials, visual acuity needed to see an examinee's physical responses, etc.). However, when trainees with disabilities participate in an assessment training sequence, it demands that implicit skills be made explicit. Once these skills are explicitly identified, the process of making a decision about whether a student with a disability has the requisite skills, or could acquire those skills by training or adaptation to the assessment process, becomes more objective, increasingly transparent, and more likely to enhance professional identity and competence.

Declarative Versus Operational Knowledge

Because assessment is considered an essential component of graduate training in psychology, all trainees with disabilities require training and this requires trainers to make some critical decisions about those aspects of assessment that will be taught; to whom and when. To this end, trainers must first distinguish between "declarative knowledge" (i.e., knowing about) and "operational knowledge" (i.e., doing) regarding

assessment. In most cases, this depends on whether the student needs to know about a particular assessment procedure (i.e., have declarative knowledge of) versus demonstrate the use (i.e., have operational knowledge of) of that assessment tool. Second, trainers must identify the depth intended for the training activity. One valuable hierarchy to consider is exposure vs. experience vs. expertise. That is, some training is intended only to expose trainees to an idea or concept so they are simply aware of it. In contrast, experience implies that the student will have some "hands on" interaction with the instrument to increase their depth of understanding, but not enough training to independently conduct the assessment. Finally, training for expertise intends that the student be proficient in all aspects of the assessment so that they can use that tool independently as part of their professional practice. The level of training for particular assessments will vary as a function of the goals of the training program. For example, some School Psychology programs might merely expose trainees to projective techniques such as the Rorschach, but demand expertise for individually administered tests of intelligence and achievement. In contrast, a program with an emphasis in psychodynamic models might do the opposite (i.e., expose trainees to intelligence and achievement measures but demand expertise in the Rorschach). Some programs may provide experience-level training to help their trainees understand how to use assessment data provided by others. The levels of exposure, experience, and expertise comprise a continuum along which trainees move from declarative knowledge (knowing about assessment) to operational knowledge (doing assessment).With this in mind, trainers can better determine when and how to provide accommodations for training in assessment. Critically, the issue is not *when* to provide training, as all trainees with

disabilities need training that meets the required competencies established by NCSPP (2007). Because declarative knowledge is a core competency in psychology, and is included in professional licensing exams, training programs are obligated to provide declarative knowledge regarding assessment—even when it is anticipated that graduates may not independently conduct psychological assessments (NCSPP, 2007).

Determining Reasonable Accommodations

Both the ADA and the ADAAA require the reasonable accommodation of qualified trainees with disabilities in their education and training settings. Although the ADA and ADAAA do not provide specific provisions for education, Title III mandates that "examinations and courses, which often serve as gateways to employment and career advancement, must be fully accessible (Benshoff, 1992; p. 129). While these Federal Acts do not specify whether test developers are required to provide alternative formats of test manuals and protocols, they direct training programs to provide trainees with equal access and reasonable accommodations. The ADA and ADAAA further stipulate that postsecondary institutions are responsible for providing and bearing the cost of reasonable accommodations to trainees with declared disabilities. A reasonable accommodation is defined as "any change in the work environment (or instructional setting) or in the way things are customarily done that enables an individual with a disability to enjoy equal opportunities (retrieved from http://www.disability.gov/home/i_want_to/learn_about_disability_laws). Thus, by definition, an accommodation does not compromise the essential elements of a course or curriculum, nor should it weaken academic standards or the integrity of the course or

curriculum. Rather, accommodations provide alternative pathways to accomplish the course requirements by reducing or eliminating the effects of disability-related barriers. Examples of reasonable accommodations include, but are not limited to:

- Note taking services
- Text conversion to alternative accessible formats
- Captioning
- Interpreter services
- Adjusting time limits on tests
- Making facilities and/or programs readily accessible to and useable for individuals with disabilities

The need for accommodations is based on the individual's documentation of said disability and individual needs. A trainee may qualify for any or all of the following:

- Interpreters/ C-Print captionists
- Note takers
- Extended time testing
- Use of assistive technology
- Readers
- Scribes
- Books on CD/ E-text
- Materials in alternate format
- Priority registration
- Peer mentor
- Preferential seating in the classroom
- Orientation to campus by an orientation and mobility specialist

Common academic accommodations made by a training program might include: extended time allowed for examinations, computer access for examinations, distraction-reduced testing locations, additional time for written assignments, classroom note-takers, books on tape or in electronic format, and sign language interpreters.

In academic training settings, disability accommodation requests are typically directed to and implemented by the University’s Students with Disabilities office. While

offices vary in their administrative location within the university, one of their major responsibilities is to execute needed accommodations for trainees. As such, a trainer's first introduction to a student's accommodation may be in the form of formal communication from the disability office advising of the approved equipment, technology, or procedural changes. Consequently, trainers and trainees would be well advised to initiate communications about accommodation needs and procedures as soon as a need arises. Often, trainees and training programs fail to do so and, as a result, make poorly informed decisions such as denying a student an accommodation or making unreasonable modifications before seeking outside expertise. This results in potentially irreversible ethical and legal violations.

When working with the university's disability office, it is important to consider the purview of each entity. It will be the responsibility of the disability office to assure that disability law has been followed and student rights have not been violated. It will be the student's responsibility to communicate their accommodation needs to the training program. Finally, it will be responsibility of the training program to maintain the integrity of the training requirements as related to the essential functions of the profession. Therefore, the training program reserves the right to deny any accommodation request it deems unreasonable or to be in violation of the essential functions of the job. Importantly, the program cannot do so prematurely.

In the case of assessment training, trainers and trainees must address several important issues before proposing accommodations. First, trainers must decide which aspects of the operational knowledge of assessment (i.e., using or doing) are essential to acquire. The assessment process is generally divided into four phases: planning,

administration, scoring, and interpretation. Each of these phases influences and informs the next phase, and each phase demands different competencies. For example, planning and interpreting assessment results requires both depth and breadth of assessment expertise, whereas administration and scoring require a working knowledge of administration rules and an ability to accurately complete the requirements of scoring and the judgment to make subjective, interpretive decisions about scoring. Likewise, planning and interpretation draw more heavily on one's ability to integrate the client's presenting problem and psychosocial history with available testing instruments. Second, careful consideration of the student's abilities and proficiencies is essential to deciding whether it is appropriate for the student to seek expertise in any or all of the four phases of assessment. The default assumption should be that trainees with disabilities are afforded opportunities to acquire the level of training (i.e., exposure, experience, expertise) provided to other members of the training program, contingent upon a realistic appraisal of what each assessment phase demands. The decision to train a student in each of the particular assessment phases varies as a function of both test demands and student ability. For example, some trainees with visual impairments may lack the visual acuity needed to administer and score tests requiring visual perception, manipulation of objects, and observation of examinee behavior (e.g., Block Design, Digit Symbol/Coding, Processing Speed subtests of the Wechsler Scales), but may have sufficient skills to master all four phases of other tests (e.g., the Vocabulary, Similarities, or Comprehension subtests of the Wechsler Scales). Thus, in many cases, case-by-case and subtest-by-subtest decisions are required.

As to the availability of testing materials in alternate formats, the Chafee Amendment to Copyright Law has bearing on addressing issues of the modification of training materials. In short, section 102(a) of the Copyright Act (Title 17 U.S.C.) provides copyright protection “in original works of authorship fixed in any tangible medium of expression, now known or later developed, from which they can be perceived, reproduced, or otherwise communicated, either directly or with the aid of a machine or device.” Section 121 of the law, often referred to as the “Chafee Amendment” exempts certain “authorized entities” from the rights of copyright owners with respect to reproducing and distributing copies of “previously-published non-dramatic works” in “specialized formats exclusively for use by blind or other persons with disabilities.” Authorized entities are defined as “a nonprofit organization or governmental agency that has a primary mission to provide specialized services relating to training, education, or adaptive reading or information access needs of blind or other persons with disabilities.” Although the Chafee Amendment to copyright law applies to educational materials such as textbooks, it specifically excludes test manuals and protocols. This requires training programs to often employ additional strategies to transform testing materials to meet the needs of their trainees with disabilities.

Determining Unreasonable Accommodations

Four principles guide the determination of unreasonable accommodation: (a) the degree to which other trainees in the program are afforded training in assessment, (b) the degree to which a student with a disability can independently conduct a given process or procedure (with appropriate training), (c) whether a student can

independently conduct the procedure (even with training), and (d) the degree to which supports provided to the student retain or undermine the validity of the assessment.

Training programs should generally seek to provide the same training opportunities to all trainees. It is not appropriate to assume that trainees with disabilities require a different curriculum. Rather, decision-making should be driven by a desire to ensure access to the training afforded to other trainees. The APA Education Directorate, Office of Program Consultation and Accreditation states in Domain B of the Guidelines and Principles for Accreditation of Programs in Professional Psychology (2007) that "…all students can acquire and demonstrate substantial understanding of and competence in…" several key areas. These include: "Diagnosing or defining problems through psychological assessment and measurement and formulating and implementing intervention strategies (including training in empirically supported procedures)" (Domain B, 3 [c]). Therefore, decisions to limit or deny access to assessment training must be made sparingly.

Training programs should provide training for experience and expertise in those aspects of assessment that a student is expected to perform independently, or with minimally invasive accommodations (e.g., computer administration or recording rather than a written record of examinee responses). Such experiences should be consistent with the goals of the program and training afforded other trainees. As noted in the preceding section, the decision about which assessment phases should be the focus of training may vary on a subtest-by-subtest, as well as student-by-student, level. When aspects of a test (e.g., stimuli that require visual perception or other manipulation exceeding the student's visual or psychomotor proficiencies) serve as barriers to

independently conducting an assessment, accommodations will be needed. Finally, when trainees cannot perform the function independently, careful consideration must be given to the degree to which adaptations that assist the student affect the validity of the assessment for the examinee. In general, standardized assessments demand that examiners follow precisely the standardized procedures for administering and scoring the assessment and deviations from protocol require thoughtful consideration but do not always compromise the validity of the administration.

Considerations Regarding Deviation from Standardized Procedures

There needs to be an understanding between trainees and their trainers regarding appropriate accommodations and their likely impact on test validity. While nearly all psychometric tests of cognitive abilities have directions for standardized administration, there may be circumstances in which a deviation from a standardized administration is appropriate and beneficial for examinees.

Because the ultimate purpose of any evaluation is to assess the patient's "optimal performance," it is sometimes appropriate to modify standardized test procedures for persons with disabilities (Caplan, 1995; Heaton, 1981; Hibbard, 1992). For example, it is sometimes necessary to modify administration for limit-testing when assessing persons with more severe impairments. Additionally, in some circumstances, clinicians are required to work harder to develop patient-provider rapport, provide considerable additional encouragement for patients to remain task-oriented, assist with managing frustration associated with poor test performance, and provide frequent repetition of test

stimuli and instructions. Alteration of test procedures is most common when a patient has a physical or sensory limitation.

A second consideration, then, involves the actual alteration of test procedures and stimuli for the benefit of the examiner. Stimuli for some tests can be enlarged for those who have visual impairments. Psychologists may need to enlarge materials themselves, though, for some tests, enlarged print versions can be purchased. For those with unilateral visual field inattention, stimuli can be placed in the intact visual field instead of the patient's midline. For some verbally-mediated tests, recognition items have been developed for those who have expressive communication deficits (Berninger, Robinson, Price & Squires, 1988).

Since psychologists have an ethical responsibility to use tests that are appropriate and meaningful for the population being assessed, and to draw valid inferences from the tests they administer, it is appropriate to be judicious about the alteration of standardized tests, however, psychologists may have an affirmative need to modify tests as part of a legal requirement for reasonable accommodations under the Americans with Disabilities Act (ADA; Ebener, Burkhead & Merydith, 1994). The clinician who modifies the protocol for a test also incurs an obligation to note the accommodation in any subsequent report, along with any interpretative caveats. Those caveats might include a more cautious interpretation of the data, or more broadly defining a range of performance. Where possible, psychologists can provide scores from both modified and unmodified administrations, assuming that both versions can be administered, and provide explanations for any score discrepancies.

Accommodation as a Diversity and Inclusion Issue

It is well documented that individuals without disabilities often experience anxiety and uncertainty when interacting with individuals with disabilities (Bailey 1996; Hahn & Beaulaurier, 2001; Olkin 1999). It has also been argued that such difficulties are present in academic settings (Daughtry, Tohey, Whitcomb, Juntunen, & Loewy 2004) and that biases may also be held by trainers (Barnard, Stevens, Oginga-Siwatu & Lan, 2008).

Individuals possess many disability-related biases and anxieties. For example, Hahn (1988) proposed that existential anxiety plays a major role in forming perceptions of disability among individuals without disabilities. Hahn (1988) has noted that people have a fundamental need to believe in a 'fair world' and seek explanations for disability that preclude the possibility of it happening to them. Individuals without disabilities take cognitive steps to distance themselves from causes of disability. Thus, interacting with people with disabilities is troublesome because it also suggests that disabling conditions are random, uncontrollable events. Such anxiety can undermine the establishment of a sound working relationship with individuals with disabilities and the opportunity to challenge these biases in a graduate training setting is a rich one.

Disability-related bias is by no means limited to people without disabilities. Individuals with disabilities are also likely to have internalized some degree of negative disability-related stereotypes (Gill, 1997; Olkin, 1999). Claims by Gill and Olkin (1997; 1999) are very similar to certain racial, ethnic, and gender biases. Recognizing and confronting disability bias can lead to more productive interpersonal interactions, especially among trainees. Gibson (2003; 2006), Gill (1997), Olkin (1999; 2000), and Hahn (1988; 1991; 1993) have provided specific suggestions regarding effective and

respectful interactions between individuals with disabilities that can be provided to trainees early in their training.

Conclusion

There are several important steps trainees, trainers, and training programs must take in order to assure that disability accommodations are fairly considered and implemented. An understanding of disability laws, disability bias and the administrative steps necessary to identify, request and implement reasonable accommodations is critical. Further, the alteration of testing procedures must be carefully evaluated as it relates to the intent of the instrument and the nature of the proposed accommodation. The legal and ethical responsibilities begin with the trainee and training program and, ultimately, impact the consumer. For all of these reasons, attention to these issues is paramount to clinical training and practice.

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