Achieving Competency in Psychological Assessment: Directions for Education and Training

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This article provides an overview of issues related to the development and evaluation of competency in psychological assessment. Specifically, we delineate the goals, ideas, and directions identified by the psychological assessment work group in the Competencies Conference: Future Directions in Education and Credentialing in Professional Psychology. This is one of a series of articles published in this issue of the Journal of Clinical Psychology. Several other articles that resulted from the Competencies Conference will appear in Professional Psychology: Research and Practice and The Counseling Psychologist. The psychological assessment group was charged with the tasks of: (a) identifying the core components of psychological assessment competency; (b) determining the central educational and training experiences that will aid competency development; (c) explicating strategies for evaluating competence; and (d) establishing future directions for furthering the identification, training, and evaluation of competence in psychological assessment. We present a set of eight core competencies that we deemed important for achieving psychological assessment competency and discuss four guidelines for training in the domain of psychological assessment. A variety of methods for evaluating competencies in this domain are suggested, with emphasis on using a collaborative model of evaluation. Recommendations for future directions include strengthening the academic prerequisites for graduate school training; increasing training in culturally sensitive measures; incorporating innovative assessment-related technologies into training; and addressing discontinuities between academic training, internship, and practice environments. © 2004 Wiley Periodicals, Inc. J Clin Psychol 60: 725–739, 2004.

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Psychological testing and assessment activities have been a central component of clinical and educational psychology since the beginnings of contemporary psychology. Significant strides in the evolution of psychological testing can be traced back to the traditions of experimental psychology and the mental testing movement of the nineteenth century (Anastasi & Urbina, 1997), and testing has remained a mainstay of applied psychology in subsequent eras. For example, a survey of 412 clinical psychologists, randomly selected from the American Psychological Association (APA) membership directory, indicated that the vast majority of respondents reported engaging in some form of assessment (Watkins, Campbell, Nieberding, & Hallmark, 1995). Specifically, 90% of survey respondents reported involvement in personality assessment, 66% were providing intellectual assessment services, and vocational/career assessment and ability/aptitude assessment activities were reported by 15% and 13% of respondents, respectively.

The practice of psychological testing and assessment has persevered despite the anti-testing trends of the 1950s and the more recent declines in the utilization of testing in clinical practice vis-a-vis the constraints of managed care (Eisman et al., 1998). This has occurred largely because assessment continues to be identified as a defining aspect of psychological expertise. Indeed, it may be argued that in the current mental health care milieu involving service providers from various disciplines, psychologists continue to be the major providers of psychological testing and assessment services to facilitate psychodiagnosis and treatment planning. Furthermore, the applications of psychological testing and assessment in recent decades have extended from the traditional arenas of
mental health facilities and educational systems into medical, neuropsychological, industrial/organizational, and forensic practice settings. Consequently, psychological assessment is an integral part of all aspects of contemporary professional psychology. International recognition of the important role of psychological assessment is evidenced by the European Association of Psychological Assessment’s sponsorship of Guidelines for the Assessment Process (Fernandez-Ballesteros et al., 2001).

The applications and utility of psychological testing and assessment generally have been discussed with reference to clinical psychology practice. For example, Maruish (1999) discussed the typical uses of psychological assessment for clinical decision making, including screening for, and diagnosing, psychopathology, treatment planning, and monitoring of progress in treatment, as well as newer applications such as evaluation of treatment outcome within the context of a continuous quality improvement (CQI) model. Beyond this domain, professional psychologists with specialties in clinical neuropsychology routinely are engaged in assessment designed to identify relative strengths and weaknesses in brain functioning (Lezak, 1995), rehabilitation psychologists are involved in evaluations of functional status and rehabilitation potential, as well as in evaluations for a range of forensic purposes (Frank & Elliott, 2000), and clinical health psychologists may be involved in the assessment of health-related variables such as coping and adjustment to physical illness (Baum, Revenson, & Singer, 2001). In addition to the areas of frequent assessment focus by clinical psychologists, counseling psychologists often are involved in the assessment of educational and vocational aptitudes and skills and/or factors related to personal growth and development (see Hood & Johnson, 2002). In the educational/school psychology context, testing and assessment are used primarily for determinations of learning disabilities, attention-deficit hyperactivity disorder, emotional/behavioral disorders, and intellectual impairments that adversely impact learning; to identify children with gifted ability, and to evaluate aptitudes and interests in order to optimize the educational and vocational development of students (see Sattler, 2002). In business settings, industrial and organizational psychologists use individual psychological assessment for various purposes, with the most common usage being for employee selection (Ryan & Sackett, 1987, 1998).

Training in psychological assessment requires more than learning to administer and score psychological tests. Standard psychological assessment texts draw a distinction between psychometric testing and psychological assessment and highlight the complex skills and processes involved in the latter enterprise. For example, Groth-Marnat (1999) discussed psychological assessment as involving “. . . an awareness and appreciation of multiple causation, interactional influences, and multiple relationships . . .” and the ability to “. . . identify, sift thorough, and evaluate a series of hypotheses . . .” (p. 5). Meyer et al. (1998) described the psychological assessment process in terms of drawing inferences from test-based information derived from multiple sources of assessment, placed in the context of referral information, client history, and observations “. . . in order to generate a cohesive and comprehensive understanding of the person being evaluated” (p. 8). Turner, DeMers, Fox, and Reed (2001) portrayed assessment as a conceptual, problem-solving process involving collection of reliable and relevant information to make informed decisions. Fernandez-Ballesteros et al. (2001) suggested that the assessment process reflects decision making, problem solving, and generating and testing hypotheses, and involves a series of specific and sequentially ordered tasks, operations, and actions undertaken to answer client questions. Recent models of assessment have characterized assessment as a collaborative process and as a therapeutic intervention in itself (e.g., Finn, 1996). Typical guidelines for assessment training include instruction in psychological theories, developmental psychology, abnormal psychology and psychodiagnosis, and statistics and test
theory, in addition to supervised instruction in test administration, scoring, interpretation, report writing, and feedback.

Doctoral clinical psychology programs generally have offered one or more courses in psychological testing with attendant instruction in psychometrics, test construction, research methods, and psychopathology. Piotrowski and Zalewski’s (1993) survey of directors of APA-accredited doctoral clinical psychology programs indicated that training in psychological testing and assessment was a major component of their curricula, and that such assessment-related training emphasis essentially was unchanged over the course of a decade. However, recent years have witnessed some erosion in the depth and breadth of assessment training provided in psychology graduate programs. For example, Belter and Piotrowski’s (2001) survey of doctoral clinical psychology programs indicated a slight reduction in the last decade in the percentage of programs that required coursework in various assessment methods, attributable largely to declines in teaching projective techniques. Stedman, Hatch, and Schoenfeld’s (2001) report, based on data collected from clinical and counseling psychology students, suggested that a substantial proportion of them received insufficient graduate training in test-based assessment. Using the number of test reports written prior to internship as the measure of pre-internship training experience, they found that only 25% of clinical and counseling psychology students had adequate report-writing experience with the 13 most frequently used tests to meet the level expected by internship directors. Notably, 25% of the students had minimal training in writing test reports before internship. Additionally, Stedman, Hatch, and Schoenfeld (2002) reported that these students particularly were deficient in testing training in relation to medical school internship directors’ expectations. These findings suggest that there is a discrepancy between the assessment training provided in graduate programs and the assessment skills expected by directors of internship programs in at least some settings.

Childs and Eyde (2002) noted that the guidelines used for accreditation review of graduate programs do not specify the content to be taught or the methods to be used in providing assessment training. Their survey of 84 doctoral clinical psychology training programs illuminated several deficiencies in training. For example, they found that few programs offered courses specifically focused on adult assessment. They also found that programs did not uniformly include a full range of assessment-related topics in their courses (i.e., interviewing, observations, formal testing, psychometrics, ethics/legal issues, diversity). Finally, an important concern was that supervised practice opportunities with specific test instruments were not linked consistently with the coursework on those tests, and the connections between theory and practice also were not explicit.

Assessment competency typically is considered an important prerequisite for pre-doctoral internship placement. Stedman, Hatch, and Schoenfeld (2000) noted that some internship settings, such as hospitals and other sites that serve multiple patient populations, place a heavy emphasis on pre-internship testing experience. Two recent surveys examined the expectations of predoctoral internship directors with reference to interns’ knowledge and skills in psychological assessment. Piotrowski and Belter (1999) surveyed training directors of 84 APA-accredited internship programs. Their results indicated that the overwhelming majority of internship programs, exceeding a 90% rate, had retained or increased their emphasis in most areas of psychological assessment, and internship training directors expected their interns to be proficient in a variety of assessment methods. These findings suggest that competency in testing skills is considered important in the training of interns for their future role as professional psychologists. Clemence and Handler (2001) surveyed training directors from 382 professional psychology internship sites in North America. Their survey results indicated that, across the settings surveyed, the training directors wanted their interns to be familiar with the well-known and widely
used intellectual and personality tests. A noteworthy finding, however, is that 56% of the surveyed sites indicated that they found it necessary to provide introductory-level assessment training. Clemence and Handler concluded that most graduate students do not possess the basic skills needed to conduct the types of assessments performed at their internship facilities, and they proposed that graduate clinical psychology educators should re-examine their assessment training modules.

Watkins (1991) provided a succinct set of conclusions concerning past and present assessment training and practice based on a review of the clinical and counseling psychology assessment survey literature published over a 30-year period extending from 1960 through 1990. His conclusions included two central points: (a) strong assessment training can strengthen graduate students’ internship and job-placement opportunities, and (b) internship directors place considerable importance on psychodiagnostic assessment skills, expect graduate programs to prepare their students in assessment skills, seek interns who have these abilities, and generally feel that beginning interns are not very well prepared in psychodiagnostics.

Training in psychological assessment during the predoctoral internship year may be considered a means of correcting the deficiencies in graduate school training and/or extending the earlier training within the context of supervised practice. A recent survey by Stedman, Hatch, Schoenfeld, and Keilin (in press) examined the patterns of training provided during internship using a national sample of 573 Association of Psychology Postdoctoral and Internship Centers (APPIC)-member internship programs that constituted 99% of the target population. Results indicated that 64% of the programs offered a major rotation in assessment, representing a larger percentage of major rotations in this specialty area compared to 21 other specialty areas listed (e.g., serious mental illness, sex abuse). However, these data suggest that approximately 40% of the programs did not provide concentrated assessment training. In contrast, 91% of the programs offered a major rotation in individual psychotherapy and 65% offered one in group therapy. The data further indicated that major rotations in assessment are especially likely to be found in child sites (92% of 48 child sites) and military sites (80% of 10 military sites), while none of the 28 private general hospitals and none of the 105 university counseling centers offered a major rotation in assessment. These findings suggest that many internships may not offer sufficient elaboration of assessment training to produce well-developed assessment competency in clinical and counseling psychology graduates.

With reference to postdoctoral clinical practice, Watkins (1991) stated that “... most practicing psychologists, regardless of work setting, provide assessment services and spend a fair portion of their professional time doing so” (p. 431). Meyer et al. (1998) emphasized that assessment is the second most important clinical activity for psychologists following psychotherapy. Kinder’s (1994) examination of advertisements for clinical psychological positions revealed considerable emphasis on assessment in jobs in mental-health centers and private practices. Specifically, 64% of all nonacademic position advertisements listed assessment as an important requirement of the position. Therefore, it is apparent that sound training in psychological assessment is essential to the work of applied psychologists. Furthermore, ongoing education and training is essential for practicing psychologists to retain and enhance their competency in psychological assessment, particularly as new tests are published, existing tests are revised, and new applications of psychological assessment are sought in the marketplace. Many states mandate participation in continuing education as a license-retention requirement for practicing psychologists. Additionally, there are published resources such as the Standards for Educational and Psychological Testing (American Educational Research Foundation, American Psychological Association, & National Council on Measurement in Education, 1999), and articles such as APA’s guidelines for test-user qualifications (Turner et al., 2001) to
promote competent testing and assessment practice. Moreover, some assessment psychologists have engaged in discussions concerning implementation of credentialing for specific areas of assessment expertise. For example, a series of papers in a symposium presented at the 2001 meeting of the Society for Personality Assessment focused on the question of developing, and credentialing for, a “gold standard” for Rorschach testing (Kaser-Boyd, 2001; Krishnamurthy, 2001; McGrath, 2001), and also discussed if such credentialing should be extended to other psychological tests to ensure test-user competency. Internationally, there has been a call for guidelines and effective quality standards on test use to be applicable to psychological assessment around the globe (Bartram, 2001). This especially is important because of the usage of translated and adapted measures in assessment practice (Hambleton, 2001). Psychological assessment competency should be understood as “contextually specific” because tests are used within specific cultural and social contexts (Bartram, 2001).

Groth-Marnat (1999) noted that assessment practice in professional settings generally is unrelated to the attitudes of academic faculty towards specific assessment measures or the amount of research published on specific tests. Belter and Piotrowski (2001) similarly observed that market-place demands and reimbursement restrictions have not significantly impacted assessment training in graduate programs. Such a schism between the training and practice worlds complicates the assessment training of students and points to the need for increased continuity between graduate education, practical training, and post-training practice and continuing education.

Competencies Conference: Psychological Assessment Work Group

The issues discussed in the preceding section served as a significant context for the recommendations developed by the psychological assessment work group at the Competencies Conference: Future Directions in Education and Credentialing in Professional Psychology, held on November 7–9, 2002. The conference agenda was developed based on the assumption that (a) core or foundational competencies of professional psychology can be identified, (b) individuals can be educated or trained to develop these competencies, and (c) competence can be evaluated. The psychological assessment work group was charged with the task of addressing issues of competence in psychological assessment in relation to four broad questions:

1. **Identification**: What are the most important components of competence in psychological assessment (inclusive of knowledge, skills, values, and attitudes)?

   In addressing this question, the work group was asked to consider components of psychological assessment including, but not limited to, theories of assessment and diagnosis; methods of assessment and diagnosis; psychological measurement; test construction and evaluation; testing process; assessment of individuals, groups, and systems; report writing; and diversity considerations.

2. **Training**: What are the most critical educational and training experiences that will facilitate the development of competence in psychological assessment for an individual? How can these experiences be conceptualized from a developmental framework?

   This question required identification of relevant developmental aspects of education and training; attention to differences in expectations as training
progresses from academic undergraduate and predoctoral experiences, to internship and postdoctoral training, to continuing professional education experiences. Suggested areas for the work group’s focus included, but were not limited to, specific coursework, supervised research and practice experience, mentoring, modeling, professional socialization, and personal development.

3. **Evaluation**: What are the various strategies for evaluating competence in psychological assessment across different stages of the education and training process? Are there different ways to accomplish this goal or should all professional psychology programs approach this competency in the same manner?

   This question was formulated based on the expectation that the identification of competencies should be accompanied by the ability to evaluate their presence and absence, or the degree of competency evaluated on a continuum. Using either a dichotomized approach or a continuum, the work group was asked to determine the minimal acceptable level(s) of competence, with consideration of both commonly practiced and more innovative and creative strategies for evaluating competence. In the event that different levels of competency were deemed acceptable, the group was asked to consider if this warranted public notification.

4. **Future Directions**: What, if any, are the action items from your work group that will help to move forward your approach to the identification, training, and evaluation of competence in psychological assessment?

   Items to consider for this question included written products, conferences, listserv discussions, symposia, interorganizational working groups, changes in curriculum, and recommendations for accreditation and licensure.

The work group deliberated over these questions for a period of two and a half days and generated a set of opinions and recommendations that were presented to the larger audience of the conference. The following sections summarize the product of the work group’s discussions.

**Identification**

The psychological assessment work group began addressing this domain by discussing the definition of assessment, including determining the differences between testing and assessment and between mental health assessment and broader forms of psychological assessment. Subsequently, a variety of critical issues were examined. Specifically, we weighed the implications of defining competencies narrowly versus broadly, such as the potential exclusion of diverse models and multiple approaches to science and practice in a narrow definition and the potential failure to capture what is unique to, and defining of, psychologists’ expertise in a broad definition. The group also examined, as contextual to our discussion, the implications of the increasing trend of specialization within the field, as well as the discontinuity between typical prescriptions of competencies and outcome-based accreditation criteria, for the development of core assessment competencies.

A second area of discussion centered on identifying general assessment skills across psychological specialties and types of populations served by the assessment. This topic stemmed from the recognition that although psychological assessment traditionally has been focused on assessing individuals, current approaches and definitions of assessment extend to assessing families, couples, groups, and larger systems. Work-group members
also considered whether or not all psychology graduate students should receive training in assessment, given that there are regional differences in service-delivery focus. Consensus was achieved on the need to provide training in multiple methods of assessment in ways that are responsive to, and respectful of, individuals, families, and groups, and to give greater emphasis to training in assessing diverse individuals and groups.

A third issue of discussion in this topic area centered on the frequency of test-based, formal assessment by practitioners. This issue emerged from group members’ awareness that (a) psychological practice has undergone considerable change due to the curtailing of time and costs in the current practice milieu; (b) some specialties (e.g., school psychology, neuropsychology) engage in more assessment activity than others, and (c) practitioners in different specialties (e.g., clinical psychology vs. industrial/organizational psychology) conduct different types of assessment. The work group deliberated over the consequences of articulating a set of competencies, particularly in terms of their impact on managed-care providers’ expectations of expertise. Finally, the group agreed that prominent attention should be given to diversity considerations and issues of high-stakes testing in the formulation of the competencies.

After these deliberations, the work group drafted, by consensus, a set of eight core competencies related to psychological assessment. Identification of these competencies rested on our assumption that there are core competencies in assessment that are essential to all health-service practices in psychology, transcending specialties. These include:

1. A background in the basics of psychometric theory.
2. Knowledge of the scientific, theoretical, empirical, and contextual bases of psychological assessment.
3. Knowledge, skill, and techniques to assess the cognitive, affective, behavioral, and personality dimensions of human experience with reference to individuals and systems.
4. The ability to assess outcomes of treatment/intervention.
5. The ability to evaluate critically the multiple roles, contexts, and relationships within which clients and psychologists function, and the reciprocal impact of these roles, contexts, and relationships on assessment activity.
6. The ability to establish, maintain, and understand the collaborative professional relationship that provides a context for all psychological activity including psychological assessment.
7. An understanding of the relationship between assessment and intervention, assessment as an intervention, and intervention planning.
8. Technical assessment skills that include:
   (a) problem and/or goal identification and case conceptualization
   (b) understanding and selection of appropriate assessment methods including both test and non-test data (e.g., suitable strategies, tools, measures, time lines, and targets)
   (c) effective application of the assessment procedures with clients and the various systems in which they function
   (d) systematic data gathering
   (e) integration of information, inference, and analysis
   (f) communication of findings and development of recommendations to address problems and goals
(g) provision of feedback that is understandable, useful, and responsive to the client, regardless of whether the client is an individual, group, organization, or referral source

The preceding list of core competencies is provided in global terms in order to underscore the major ingredients of psychological assessment competency. Further specificity could be achieved in each of the eight areas. For example, the first competency—a background in the basics of psychometric theory—could be elaborated to specify knowledge of psychometric concepts of reliability (e.g., internal consistency, temporal stability) and validity (e.g., criterion-related, construct, incremental validities); knowledge of sources of error (e.g., response biases); and knowledge of item-response theory, factor analysis, and structural equation modeling.1 Such specification may be attempted in future efforts focused on elaborating this list and also could be undertaken by individual graduate training programs in ways that are consistent with their structure and philosophy of training.

We also note that competent psychological assessment practice requires awareness of the factors that contribute to, and influence, the inferences made from assessment data. Knowledge of the literature on the role of factors such as culture, ethnicity, age, and sex, which may function to reduce the accuracy of inferences, is important in the course of attaining psychological assessment competency. Additionally, the competent assessor would (a) be familiar with the empirical literature relevant to the object of assessment (e.g., the literature on adult depression when assessing clients with depressive disorders), (b) have skill in meaningfully integrating information from multiple tests and methods of assessment, and (c) have a sound understanding of, and adherence to, the professional and ethical standards related to psychological assessment practice.1

Training

Several broad issues were examined by the psychological assessment group in addressing training in this competence domain. First, we discussed our impression that undergraduate prerequisites for entry into graduate school have become less rigorous in recent years, with the result that graduate students have poorer foundations in psychology. Our group agreed that a strong undergraduate knowledge base is essential for effective graduate-level assessment training. Second, we noted that doctoral psychology programs appear to be giving decreasing time and attention to assessment training. Conversely, many internship settings demand strong academic training in psychological assessment as a prerequisite for internship placement. The attendant question that emerged concerned whether or not students receive adequate training in graduate school in skills needed in the internship and practice environments. A related question concerned whether or not there is a meaningful connection between what students are trained to do and what they actually do in their future practices. We also discussed students’ perceptions that they need to accrue extensive assessment-centered practicum hours to compete successfully for internship positions. The work group asserted that there should be better collaboration between academics and practitioners in training students, using a unified rather than concurrent or sequential approach of training, and that academic training should be relevant and generalizable to internship and practice settings. We also agreed on the importance of training students in the supervision of psychological assessment.

1These ideas and examples are derived from the feedback and direction provided by a reviewer of this manuscript; we express our gratitude to this reviewer.
The following set of four recommendations for training methods and modalities, representing essential or critical aspects of training, were drafted by consensus of the work group:

1. Academic courses should be relevant to a broad range of assessment models that provide instruction in the core competencies. Coursework should include foundational courses on the theoretical and empirical bases of assessment, including psychological theories, psychometrics, and psychopathology, as well as courses relevant to specific assessment methods.

2. Practicum training experiences in psychological assessment should be coherent and consistent with the graduate program’s model and philosophy of training and should involve exposure to diverse populations and settings. Practicum supervision in psychological assessment should be provided in individual and small-group modalities, be intensive in nature, and be organized around a supervisory relationship with an experienced mentor.

3. There should be an integration of coursework and practicum experiences in learning and applying assessment knowledge and skills.

4. Essential psychological assessment skills should be developed within a framework of coherent and cumulative learning involving progressively increasing complexity, consistent with the program’s training model and philosophy.

**Evaluation**

The work group’s preliminary discussion in the area of evaluating competence in the domain of psychological assessment focused on two issues: (a) the understanding that competencies are embedded in a developmental framework and would consequently need to be defined and evaluated differently at different levels of training and professional development, and (b) models of measuring competency evaluation used in industrial and organizational psychology (e.g., Shippman et al., 2000) may be applied usefully to evaluate psychological assessment competencies. A competency model categorizes and describes the key behavioral elements of the evaluated function or role (in this case, of the psychological assessor) and incorporates Knowledge, Skills, Abilities, and Other Characteristics (e.g., attitudes, values) (KSAO) areas. A KSAO framework provides a basis for identifying existing strengths for psychological assessment performance and can serve to help an individual plan his/her own development toward refining skills in psychological assessment. Competency models are flexible and can be developed for evaluating baseline competencies, as well as for identifying the distinguishing characteristics of high-performing psychological assessors. KSAO-based competency models can help standardize a curriculum for psychological assessment.

The KSAO-based competency model may be applied broadly in the following manner to evaluate psychological testing competency: Knowledge refers to the psychometric and theoretical information acquired through coursework; Skills refer to proficiency in different methods of assessment (e.g., test administration, scoring, and interpretation; interviewing; observations) and communication of assessment findings; Abilities include rapport building, critical and integrative thinking, and psychological mindedness; Other Characteristics could include attitudes and values such as respect for the person of the client and appreciation of diversity, and a variety of facilitative capacities such as precision/accuracy, attention to detail, and good communication skills.
The work group proceeded to identify three central principles to be employed in evaluating competency in psychological assessment. An effort was made to keep the principles broad and general in nature as opposed to specifying particular contents in order to make them applicable to the various specialties represented in the conference and in the field of professional psychology. The principles were:

1. The evaluation of psychological assessment competency should focus on the comprehensive and integrated set of psychological assessment activities extending from the initial interview and psychological testing and intervention to the evaluation of outcome of psychological service.
2. The content areas evaluated should reflect core competencies and methods of training.
3. The evaluation should be individualized and personally sensitive, and provide adequate, meaningful feedback.

A broad range of methods of evaluation were identified and discussed. These included evaluation of classroom/course performance, direct observation of psychological assessment work, evaluation of performance in individual projects, and summative performance evaluation, as well as use of data from interviews, surveys, and archival records. Additionally, the work group asserted that self-assessment, using methods of reflection, was a valuable approach to evaluating psychological assessment competency. Furthermore, we favored the use of collaborative approaches to evaluating competency, such as the use of 360-degree surveys wherein the psychological assessment trainee obtains feedback on his/her performance and competency from the perceptions of colleagues, clients, and supervisors. Other means of evaluating competency collaboratively include obtaining feedback from referral sources about the helpfulness of assessments and requesting feedback from clients about the usefulness of the assessment process for them.

**Future Directions**

Our work group was cognizant of the fact that the ideas and directions generated over a period of three days were preliminary at best, despite being developed from consideration of previous efforts by educators and trainers, as well as our own intensive brainstorming. Consequently, we identified several areas that require further development. First, although we worked from a broad definition of psychological assessment that extended from the traditional assessment of individuals to the assessment of larger groups, we felt that the assessment of various groups, organizations, and systems, and their impact on individuals, requires further attention. Moreover, we felt that future efforts should elaborate the test-based assessment focus to use of more comprehensive and responsive assessment approaches and methodologies, incorporating alternative methods such as qualitative and narrative assessments.

One area that has received insufficient attention to date concerns supervision in psychological assessment. There is a dearth of information, and a general absence of empirically based guidelines, for supervision and training in assessment skills, which is in sharp contrast to the literature available on psychotherapy supervision. We recommended that future endeavors focus on the development of specific models of supervision in psychological assessment. We also suggested further discussion and dissemination of information concerning psychological assessment training through follow-up conferences on competencies, scholarly writings, and use of Internet websites and listservs to share information on innovative practices in psychological assessment.
The psychological assessment work group also recommended undertaking dialogues with multicultural summit leaders to examine methods of assimilating diversity considerations into psychological assessment training. Specifically, we recognized the need for training programs to incorporate models of culturally competent assessment, such as those provided by Dana (1998, 2000), Suzuki, Ponterotto, and Meller (2001), and Hambleton (2001), routinely into their assessment training agenda.

Additional directions for the future include:

1. Encouraging doctoral programs to strengthen their prerequisites for graduate-school admission in terms of undergraduate psychology foundations.
2. Addressing the discontinuity between doctoral academic program training and internship trainers’ requirements.
3. Addressing the division between graduate assessment training and the demands of the marketplace.
4. Encouraging training programs to incorporate technological advances that relate to psychological assessment in their training.
5. Encouraging test developers and publishers to incorporate innovations in technology into assessment measures and methodologies.
6. Undertaking advocacy with insurers, employers, employee-benefit programs, and government agencies with reference to the cost effectiveness of psychological assessment.
7. Encouraging accreditation bodies in the field of psychology to acknowledge that there are diverse methods for teaching and training in psychological assessment and to provide suitable latitude for training programs in demonstrating their successes.

It should be noted that although there were several points of consensus among the psychological assessment work-group members, some tensions and disagreements also existed, reflecting differences related to opinion, specialty, and setting that mirrored the dissension found among professional psychologists. One topic of debate concerned the amount of time and emphasis to be given to traditional forms of training in intellectual and personality testing of individuals versus training students in broader, ecological approaches to assessment. Another area of dissent revolved around balancing the training responsibilities of academic programs and internship supervisors. For example, participants from academic settings felt that there were several real constraints around expanding course offerings to address the advanced elements of psychological assessment extending beyond the basics of the assessment process. They were of the opinion that externship and internship settings should assume primary responsibility to address the more applied aspects of training. These discussions, and the ensuing efforts to arrive at a common ground, were productive in terms of elucidating the points of contention within professional psychology and sensitizing participants to the needs and demands of various specialties and settings.

The psychological assessment work group received valuable input on issues of psychological assessment competencies from other work groups in integrative sessions held during the conference, which aided in underscoring some important points. First, we were made aware that the larger community of conference attendees affirmed and valued the interdependence of assessment and intervention. In essence, there was general agreement that a good understanding of what is to be treated is necessary for treating it effectively, and that psychological assessment plays a valuable role in identifying what is to be
treated. Second, there was overwhelming consensus across work groups that knowledge of psychometric theory and measurement principles has been, and continues to be, a foundational and defining feature of our profession. Interestingly, feedback from other work groups conveyed support for the notion of requiring every practicing psychologist to have exposure to testing and to receive training in the use of specific tests, even if they do not achieve broader competency in psychological assessment. Third, the integrative sessions accentuated for us the importance of evaluating knowledge, skills, abilities, and attitudes/values in determining if competency in psychological assessment has been achieved, and to expect acquisition of broader abilities and appropriate professional values in the course of competency development. Fourth, there was widespread acknowledgment of the importance of self-assessment, inclusive of a cultural self-awareness (i.e., reflecting on personal biases, assumptions, and values, and evaluating their potential impact on clients and the processes of psychological work). Fifth, we recognized the importance of training students and professionals in the use of emerging culturally sensitive measures, with the related goals of incorporating cultural measures into mainstream assessment practices and promoting an understanding of psychological data in the multiple contexts of clients’ experiences. Sixth, we noted that practicum or internship training supervisors may themselves need training in testing tools and in the broader knowledge of content domains relevant to their assessment supervision. Furthermore, they may need to give increased attention to training students to be expeditious and efficient in providing assessment feedback to their clients and generating test reports.

The integrative sessions also assisted in highlighting two additional points. One, mentioned earlier, concerned the importance of developing continuity between professionally driven or defined competencies and the criteria used by regulatory and accrediting bodies in determining competency. This issue speaks to the imperative need for psychological assessment educators, trainers, and practitioners to communicate and work with such individuals and groups external to their training and practice settings to achieve uniformity in expectations and standards. The second point related to appreciating the importance of needs assessments in the course of any assessment, and as a crucial component of consultation. It follows that students should be trained in such evaluative techniques and learn to conduct outcome evaluations.

Conclusions

Developing competency in psychological assessment is a complex, intensive, and multifaceted process that presents numerous responsibilities and challenges to educators, trainers, learners, and professional practitioners. Continuing efforts should be directed toward strengthening prerequisite knowledge for doctoral training, ensuring that all doctoral students develop core competencies in psychological assessment while encouraging additional specialty training, incorporating assessment-related technologies into training, and achieving greater continuity between training in the academic, internship, and practice environments. In addition, psychological assessment training would benefit from the development of models of supervision of psychological assessment and of methods of evaluating competency attainment.

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