

# Preliminary Consumer Guidelines for Choosing a Well-Suited Neuropsychologist for Evaluation and Treatment of Acquired Brain Injury

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## Introduction

Few guidelines are available to consumers for evaluating the utility of neuropsychologists in the evaluation and treatment of brain injury. In the field of clinical neuropsychology, board certification is offered as the recommended and clearest evidence of competence. As Lees-Haley aptly points out in his article on page 33, however, board certification is problematic on several grounds. In addition, recent guidelines issued through "The Houston Conference on Specialty Education and Training in Clinical Neuropsychology" can and have been criticized strongly for neglect of treatment and rehabilitation-related issues.

Recently, Martelli and Zasler generated a list of competency guidelines offered as evidence of competence related to practice of forensic neuropsychology in the area of brain injury (Martelli, Zasler & Grayson, 1999). These guidelines were limited, however, to criteria primarily relevant to assessment in medicolegal evaluations. The intention of this paper is to provide a set of clinically relevant and useful guidelines, intended to assist consumers in choosing a well-suited rehabilitation neuropsychologist. These guidelines are based in large part on a critical evaluation regarding what is useful versus not, founded on years of input from the authors' regular consumers (i.e., occupational, speech and physical therapists, nurses, physicians, psychologists and neuropsychologists, patients and family members).

## Suggested Guidelines for Identifying the Most "Useful" Rehabilitation-Oriented Neuropsychologists

The best-suited rehabilitation practitioner should:

- Have a good assessment record (i.e., reports seem useful and fit patients; regular consumer opinions are positive regarding the utility and benefit of the reports).
- Provide recommendations that appear individualized, practical, non-generic, variably creative, useful, helpful and often seem to work.
- Avoid psychiatric assessment instruments and norms. He/she should employ normative data derived on similar patients (e.g., individuals with brain injury) and not rely routinely on psychiatric norms for evaluations. Psychiatric norms—based on patients receiving psychiatric treatment—usually represent an improper comparison group,

and predispose psychologists to make psychiatric diagnoses and interpretations. He/she should be familiar with and employ the newest instruments in assessing relevant symptoms and strive to use instruments with the best reliability and validity and most appropriate normative comparison groups (see Williams' article on page 40 for discussion of psychometric issues).

- Adequately describe behavioral observations and test-taking behaviors, especially behaviors relevant to test performance (e.g., headache, sleep, fear of losing disability).
- Integrate personality, observational, collaborative and test data, as well as premorbid (pre-injury) information in a sophisticated and meaningful way that makes sense to others, and presents a rich, holistic picture of a client in his/her particular circumstance. Tentativeness regarding diagnosis and clinical formulations should be afforded as indicated.
- Avoid reliance on test data alone. Adequate time should be spent with the client to perform a thorough interview, as well as gather collaborative data and other information from family members and others.
- Receive client feedback that routinely suggests adequate time was spent with him/her and a reasonable effort was made to understand him/her in terms of personality and situation. (See the article by Kolakowsky-Hayner and Kreutzer on page 22 for discussion of the validity of patient self-report.)
- Generally employ an interactional and biopsychosocial assessment and treatment model that neither is simplistic nor black or white and/or unidirectional, and that looks at all relevant factors in a reasonable fashion. He/she typically should generate sophisticated, interactional diagnostic formulations, consistent with the complexity of most observed situations (i.e., things are seldom black or white), known base rates (i.e., how common the symptoms are in the non-affected population) and prevailing biopsychosocial models (e.g., multifactorial models that consider vulnerabilities versus black or white formulations). (See the articles on page 28 by Mittenberg and Condit and page 26 by Greiffenstein for two such proposed models.)

TABLE 1: Diagnostic Realities in Assessment of Acquired Brain Injury (ABI)

	Real Organic Disorder (i.e., ABI)		Residual Functional Impairments		Residual Testing Impairments		
	1. Yes		1. Yes & Exaggerated		1. Yes & Not Exaggerated		
	2. Mixed		2. Yes & Not Exaggerated		2. Yes & Exaggerated		
	3. Indeterminate		3. No & Exaggerated		3. No & Exaggerated		
	4. No		4. No & Not Exaggerated		4. No & Not Exaggerated		
	4	x	4	x	4	=	64

### Reports of Neuropsychologists

These reports should ideally:

- Avoid dichotomous and unidirectional conclusions (e.g., “Law of the Instrument,” wherein a psychologist is inclined to see everything as emotionally-caused, and a physician is inclined to see everything as biologically-caused) and recognize that emotional symptoms both can be a reaction to, as well as a cause of, post-concussive symptoms.
- Avoid mainly simplistic black or white, either/or conclusions (i.e., “psychiatric,” “organic/medical,” “genuine,” “malingering”), instead recognizing mixtures and shades of gray. (See the article by Vanderploeg and Curtiss on page 14 for related discussion of malingering assessment.)
- Be free of bias or preferential tendencies with regard to inferences about psychological or organic contributions to client conditions (e.g., tendencies to see everything and everyone as psychological; or conversely, tendency to doubt psychological influences and assume everything or everyone is organic). Notably, **Table 1** represents just 64 of the possibilities with regard to brain injury-related diagnostic realities. Professionals who typically employ only two or three of these (e.g., true brain injury or no brain injury, or true brain injury or malingering) probably are biased.

Further, psychologists who do an unusually large amount of medicolegal work, or prefer to do so, should be evaluated critically. Courts and attorneys usually prefer black and white opinions and eschew practitioners with less simplistic diagnostic and conceptual viewpoints. Practitioners can be reinforced subtly while garnering much higher reimbursements than standard clinical fees by employing a more dichotomous and simplistic (i.e., easier) adversarial ethic versus a scientific (i.e., more laborious) ethic in their opinions that are solicited and paid for by attorneys.

Further, professionals, like others, have not only biases, but also personal styles more suited for some settings than others. Based on observations of local practitioners—both informal and formal surveys conducted as part of an ethics review project and review of social psychology literature—the following inferences are offered tentatively.

Practitioners with skeptical or suspicious behavioral traits and compulsive tendencies seem inclined to show diagnostic preferences more compatible with defense attorney interests and are more predisposed to defense-related medicolegal involvements. Those with histrionic or hypochondriacal and sympathetic personality traits are more inclined to diagnostic preferences compatible with becoming a plaintiff's expert. In contrast, persons with tendencies toward social finesse

and flexible morals seem more inclined to be identified by reputation as attorney's experts (i.e., these individuals seem to agree with the retaining side, whether defense or plaintiff). Importantly, involvement in specialization then results in continued reinforcement of selected traits, which can reinforce biases further. Insisting on a practitioner with a local reputation for being fair, objective and a “straight shooter” can obtain protection against this behavior. It should be emphasized, for example, that a reputed “plaintiff-inclined” neuropsychologist probably would be more likely to diagnose significant brain injury and assist with procuring a higher settlement. Diagnosing a brain injury when chronic pain is the real source of problems and making strong statements about permanent disabling impairments, however, produces inaccurate expectancies, incorrect treatment and unnecessary prolongation or even permanence of distress.

Good neuropsychologists also should:

- Produce reports that offer logical inferences, with reasonable, easy-to-follow justification. The report should be clear and “sensible” to most readers, including psychologists as well as non-psychologists.
- Produce reports that: 1) offer strong opinions only in very clear situations and with much support, 2) sufficiently are tentative in generating hypotheses, recognizing the limited amount of information and time spent in the typical testing and interview situation, 3) recognize the inherent limitations of testing situations involving instruments of varying validity and reliability and a host of nonspecific factors affecting results and 4) recognize that—in science and medicine—things rarely are “either/or,” “clear-cut” or unidimensional.
- Avoid reliance on non-PhDs to spend most of the time and perform most of the billed assessment with the client. These individuals are not trained adequately to assess, interpret or integrate test behavior with interview, test results, personality data, etc. (Unfortunately, many standard practices are established on, and financially dependent upon, the primary utilization of testing technicians who usually are paid a small percentage of the billed service fee.
- Should collect data—formally or informally—regarding validity and predictive accuracy of diagnostic inferences and formulations, predictions and recommendations. Psychologists are trained uniquely to evaluate the validity and utility of their work. Also, a field as new as neuropsychology is best served when its practitioners seriously, continuously, formally and critically evaluate the validity and utility of their work. We see too few examples, however, of any such meaningful efforts and, instead, too much assumed competence. When those most able to evaluate the utility of their work do not attempt to, consumers should ask why these practitioners are not collecting the validation data (i.e., being true scientist-practitioners) needed to

refine their ability to help clients (i.e., becoming better clinicians). In other words, why they do not accept the same accountability of plumbers and mechanics for the results of their work and justifying their fees.

### Suggestions and Guides for Program Evaluation

Because the behavior and information above is rare, the authors offer practitioners this model and these suggestions, to guide program evaluation. Formal data collection is preferable, and might include a structured Continuous Quality Improvement (CQI) program with continued extended follow-up efforts to assess validity and predictive accuracy longitudinally, with mechanisms for modifying practice based on validity data. For example, are other causes of lower test scores (e.g., chronic pain, sleep disturbance, psychological disturbance) being considered adequately in the differential diagnosis of brain injuries? Are predictions of ability or inability to benefit from treatment supported? Do predictions about work and other areas of functioning hold true? Do patients respond to prescribed recommendations? Do diagnostic patterns fit expected base rates?

To be most useful to patients while serving advancement of the field of neuropsychology, programs and practitioners should:

1. Employ naturalistic, ecologically-valid criterion variables (i.e., real-world predictor variables versus simplistic models and methods, such as comparing diagnostic and prognostic statements with available cookbooks that are useful questionably and marginally in terms of association with the diagnoses or real life variables being predicted) (See Sbordone's excellent article on ecological validity on page 10); and
2. Allow independent inspection of their "track record," and afford open, clear discussion about efforts, results and positive effects on service provision (e.g., changes in assessment methods, diagnostic formulations, recommendations, treatment interventions).

At a minimum, informal data collection is essential, and would be reflected in efforts to solicit referral sources, informal follow up information regarding treatment outcome, etc., from patients. Data regarding track record should be available; changes in professional practice should be evident from these practices, and easy to discuss.

Importantly, no one would hire a plumber or auto mechanic if: 1) the correlations between their tests and actual problems were as nebulous, 2) there was as much disagreement among practitioners about diagnoses or treatment and/or 3) there was no assurance that the problem (e.g., toilet overflowing) would be repaired. Should anyone settle for a neuropsychologist who makes predictions when he/she never may be held responsible for the accuracy of his/her diagnoses, ability to fix problems or even follow up treatment? If there is no realistic expectation that the "toilet overflow" can be repaired, should not the practitioner be expected to make extra effort to explain why, and suggest practical alternative strategies for compensating for the problem?

Good neuropsychologists provide balanced or reasonable amounts of treatment services, not only and/or mainly assessment duties. Not providing this balance limits the scope of knowledge of some patient types, because follow up data for evaluation and refinement of diagnostic and prognostic inferences is not seen. Ideally, they should:

- See a significant portion of the particular patient type being assessed,

in individual treatment.

- Have a reputation for treating the particular patient type/population—including a treatment record—that seems reasonable, especially in the brain injury community.
- Seem willing to and do treat patients regarded as "challenging" (especially if they have a reputation for getting good results in a fair amount of time).
- Show openness to new ideas, self-examination of the utility of their services and genuine interest in improving services and the lives of the persons with whom they work.

With regard to shopping, the best-suited rehabilitation neuropsychologists usually will:

- Work in specialty settings that will be recognized differentially by their name (e.g., Brain Injury Rehabilitation Services, Physical Medicine and Rehabilitation Hospital, Rehabilitation Neuropsychology, Physical Medicine and Rehabilitation Hospital/Service). Neuropsychologists working in these settings—not part-time consultants who specialize in other areas—usually are best qualified.
- Be identified as specialists in the assessment and treatment area of the patient being referred, not only by working in a setting identified as such by name, as noted above, and reputation, but also by primary duties performed and personal identification (e.g., neuropsychologist, brain injury rehabilitation psychologist).

Given any uncertainty, it seems prudent to maintain skepticism and scrutinize critically recommended guidelines in the following cases:

- A. Psychologists who are employed and associated primarily with psychiatry or "traditional" psychology or mental health delivery services, where traditional psychiatric patients are the focus of treatment. These services will be designated as such (e.g., Psychology Service, Psychiatry Service, Psychological Assessment Clinic).
- B. Part-time consultants to rehabilitation or neuropsychology programs who are employed and associated primarily with traditional psychological assessment and treatment services.
- C. Psychologists who primarily perform assessment versus treatment, including psychologists associated with agencies or departments labeled as assessment specialty services (e.g., Psychological Assessment Service).
- D. Psychologists associated with traditional agencies (e.g., Psychological Assessment Center in a Psychiatry Department, Psychiatry Service) that purport *also* to provide neurologic rehabilitation, in addition to psychiatric evaluation, when formal agencies specializing in such services exist locally. This would be true particularly in the case of psychologists who do not work in a setting that affords working relationships and dialogue with equally qualified professionals in the same specialty area. Absence of alternate ideas, challenges, feedback and so on fosters stagnation and does not facilitate development and professional growth.
- E. Psychologists who seem defensive or resentful in response to these inquiries, or who offer purported diplomas or credentials in lieu of the suggested experience and credentials recommended herein.

Finally, Lees-Haley's article on page 32 offers some excellent compli-

mentary recommendations to consumers that not only assist with finding the most helpful neuropsychologist, but also using them to a consumer's best advantage. These guidelines are highly recommended reading.

### Conclusion

In this paper, an attempt is made to offer a set of preliminary consumer guidelines for evaluating and choosing well-suited rehabilitation neuropsychologists for specialty evaluation and treatment services for persons with brain injury. The intention of the article is to reflect the needs of consumers, based on a critical evaluation regarding what is useful and years of input from the regular consumers of neuropsychology. The authors hope that these guidelines—even though preliminary—are relevant and useful clinically. In the future, the authors hope to provide guidelines with a greater emphasis on rehabilitation treatment services.

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Rehabilitation. Dr. Zasler also is CEO and medical director of Tree of Life, a living assistance and transitional rehabilitation program for persons with acquired brain injury. He is board certified in Physical Medicine and Rehabilitation and fellowship trained in brain injury. He is a fellow of the American Academy of Disability Evaluating Physicians, a board certified independent medical examiner and a diplomate of the American Academy of Pain Management. Dr. Zasler has lectured and written extensively on rehabilitation issues. He serves on numerous journal editorial boards and is editor-in-chief of the international scientific publication *NeuroRehabilitation: An Interdisciplinary Journal*, as well as, the *International Neurotrauma Letter*. He recently was named, as of 2001, the new co-editor of the international journal, *Brain Injury*. His main areas of clinical and research interest include neuromedical issues in acquired brain injury and chronic pain rehabilitation including headache.

F. Frank LeFever, PhD was introduced to neuropsychology by Hans-Lukas Teuber, who urged him to enter that new field. After his 1973 PhD work at New York University doing brain surgery on rats, analyzing the effect of their executive functions using an elaborate operant conditioning procedure (B.F. Skinner was his thesis mentor's thesis mentor), he began studying Behavior Therapy with Joseph Wolpe, and teaching college students before his clinical internship, postdoctoral specialization in human neuropsychology, and clinical practice with rehabilitation patients (TBI, Stroke, MS, etc.) at Helen Hayes Hospital (1977 to present). He regularly presents research and case studies to the International Neuropsychological Society and the Society for Neuroscience. As president of the New York Psychology Group, he organizes many conferences promoting integration of neurosciences and clinical neuropsychology, and has dealt with professional practice issues as president of the Neuropsychology Division of the New York State Psychological Association.

### References

- Hannay HJ, Bieliauskas LA, Crosson BA et al.: Proceedings: The Houston Conference on Specialty Education and Training in Clinical Neuropsychology. *Archives of Clinical Neuropsychology*, [in press]. Copyright by the National Academy of Neuropsychology, 1998.
- Martelli MF, Zasler ND & Grayson R: Ethical considerations in medicolegal evaluation of neurologic injury and impairment. *NeuroRehabilitation: An Interdisciplinary Journal*. 13(1):45-66, 1999.
- Report of the Therapeutics and Technology Assessment Subcommittee of the American Academy of Neurology: Assessment: Neuropsychological testing of adults. *Neurology*. 47:592-599, 1996.

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