



Update on Third Party Observers in Neuropsychological Evaluation: An Interorganizational Position Paper

Tannahill Glen, Mark Barisa, Rebecca Ready, Edward Peck & Tresa Roebuck Spencer

To cite this article: Tannahill Glen, Mark Barisa, Rebecca Ready, Edward Peck & Tresa Roebuck Spencer (2021) Update on Third Party Observers in Neuropsychological Evaluation: An Interorganizational Position Paper, *The Clinical Neuropsychologist*, 35:6, 1107-1116, DOI: [10.1080/13854046.2021.1901992](https://doi.org/10.1080/13854046.2021.1901992)

To link to this article: <https://doi.org/10.1080/13854046.2021.1901992>



Published online: 19 May 2021.



[Submit your article to this journal](#)



Article views: 338



[View related articles](#)



[View Crossmark data](#)



Update on Third Party Observers in Neuropsychological Evaluation: An Interorganizational Position Paper

Tannahill Glen^a, Mark Barisa^b, Rebecca Ready^c, Edward Peck^d and Tresa Roebuck Spencer^e

^aNeuropsychology, Inc., Jacksonville, Florida, USA; ^bPerformance Neuropsychology, Frisco, Texas, USA; ^cUniversity of Massachusetts Amherst, Dept of Psychological and Brain Sciences, Amherst, MA, USA; ^dNeuropsychological Services of Virginia, Richmond, Virginia, USA; ^eJefferson Neurobehavioral Group, Houston, Texas, USA

ABSTRACT

Objective: The National Academy of Neuropsychology (NAN), the American Academy of Clinical Neuropsychology (AACN), and the American College of Professional Neuropsychology (ACPN) collaborated to publish an update to their original position statements, confirming the organizations' opposition to third party observers (TPO).

Method: A review of literature addressing TPO effects, ethical standards, professional organization position statements, test publisher policies and new telemedicine developments was completed to obtain consensus on relevant issues in TPO and recording of neuropsychological evaluations.

Results: TPO has been shown to impact the cognitive functions most often assessed in forensic or medicolegal settings. Third party observation, whether in person, recorded or electronically, remains a potential threat to the validity and reliability of evaluation results, and violates test security guidelines, ethical principles and standards of conduct in the field. Demands for TPO in the context of medicolegal or forensic settings have become a tactic designed to limit the ability of the consulting neuropsychologist to perform assessment and provide information to the trier of fact.

Conclusions: The field of neuropsychology opposes the presence of TPO in the setting of medicolegal or forensic neuropsychological evaluations.

ARTICLE HISTORY

Received 11 February 2021
Accepted 7 March 2021
Published online 19 May 2021

KEYWORDS

Assessment; Forensic neuropsychology; Professional issues

Introduction

The National Academy of Neuropsychology (NAN), the American Academy of Clinical Neuropsychology (AACN), and the American College of Professional Neuropsychology (ACPN) are united in their opposition to third party observers (TPO) in clinical

CONTACT Tannahill Glen  neuropsychology@tannahillglen.com  ABPP, 3019 St. Johns Avenue, Jacksonville, FL 32205, USA

This article has been co-published with permission in ARCHIVES OF CLINICAL NEUROPSYCHOLOGY and THE CLINICAL NEUROPSYCHOLOGIST. All rights reserved in respect of ARCHIVES OF CLINICAL NEUROPSYCHOLOGY, © The Authors, and in respect of THE CLINICAL NEUROPSYCHOLOGIST, © The Authors. The articles are identical except for minor stylistic and spelling differences in keeping with each journal's style. Either citation can be used when citing this article.

neuropsychological evaluations. The presence of third-party observation is opposed because, most fundamentally, it introduces concerns about reliability and validity of test procedures and results (i.e., the presence of a TPO will negatively affect the accuracy and utility of the neuropsychological assessment). TPO introduce extraneous factors that deviate from the assessment procedures' intended use. Specifically, TPO departs from standardized administration procedures because it creates observer effects which are known to affect human performance and test validity. Observer effects, such as distraction of attention of an examinee, are not taken into account in collection of normative data, which may result in inaccurate conclusions pertaining to the extent and severity of abnormal findings. Replacing in-person observation with camera recording or remote observation does not eliminate these issues (Constantinou, Ashendorf, & McCaffrey, 2005). TPO and recording of evaluations conflict with requirements for test security, published ethical principles, and standards of conduct in the field that are designed to protect the public, examinees, and the profession as a whole.

The potential deleterious effects of TPO are particularly problematic in the medicolegal or forensic context, because of the unique consultant role of the neuropsychologist. These evaluations are adversarial, often entail adherence to a Court Order, and typically involve an opportunity to complete a medicolegal or forensic examination and formulate opinions based on data obtained during that assessment. Therefore, it is especially critical to minimize the effects of TPO. Follow-up contacts and repeat examinations do not occur as they might for clinical assessments, in which there is an opportunity to further evaluate unclear or invalid results. In non-medicolegal or non-forensic assessment there is an iterative process between clients and clinicians, allowing for ongoing communication such that findings can be updated, reconsidered, or amended. In forensic settings there is no similar reciprocal communication between the forensic evaluator and the fact finder, and typically, the evaluator has one opportunity for diagnosis or description of deficits. Expert opinion based on collected data is often critical in deliberations concerning, for instance, a defendant's life or liberty, or a plaintiff's economic justice. Any variable, however small, that may adversely affect the neuropsychological evaluation should be guarded against.

Further, attorneys have recognized that neuropsychologists have reservations about assessments involving TPO. It has become a legal tactic for attorneys attempting to limit or even preclude neuropsychological assessment to demand TPO, which potentially limits the availability of impactful evidence to the trier of fact. Neuropsychologists frequently fend off requests for videotaping or remote monitoring of examination, or allowing an involved third party such as attorney, legal assistant, spouse, or even a psychologist to attend the interview and examination to monitor and take notes. These requests may compromise the ability of neuropsychologists to gather valid data and render empirically-based opinions (Zasler, 2019) and may ultimately affect information experts can provide to the court.

Consistent with our prior position statements, neuropsychologists recognize that there are circumstances in which TPO is permitted. Those circumstances are limited to specific evaluation *context* (clinical, as opposed to medicolegal or forensic) and the *type of observer*. For example, TPO may be necessary in the assessment of an anxious

child who is unable to participate in testing unless a parent is present. Similarly, an interpreter may be required when assessment cannot be completed in the patient's preferred language. In these instances, TPO facilitates data collection when assessment could not otherwise proceed. Trainees such as residents and interns are also examples of TPO with no stake in the outcome of an evaluation, and who appear only in the clinical context. These examples are in contrast to TPO whose presence may interfere with data collection without adding advantage, such as those with a stake in the outcome of the evaluation, for example, an attorney or a party retained by the attorney.

Prior Statements on TPO

In 2000, NAN published an official statement opposing the presence of TPO during neuropsychological testing (Axelrod, Barth, Faust, Fisher, Heilbronner ... Silver, 2000). In close succession, AACN published its own policy statement on TPO (American Academy of Clinical Neuropsychology, 2001).

The two publications were the first formal statements from major professional organizations on the issue of TPO in neuropsychological assessment. They were closely followed by other organizations (e.g., American Psychological Association, 2007) that also opposed TPO. Additional position statements on related issues, such as recording of evaluations and test security (e.g., National Academy of Neuropsychology, 2000; Inter Organizational Practice Committee, 2014; American Board of Professional Neuropsychology, 2016) have been subsequently released.

In the two decades since their publication, the NAN and AACN statements have been valuable resources in neuropsychologists' efforts to minimize external factors that could compromise data collection and interpretation, standardization, and test security. Importantly, the 2016 policy statement from the American Board of Professional Neuropsychology (ABN) extended the argument against TPO to recording of neuropsychological evaluations. The purpose of the current paper is to present a collaborative position statement, updated to reflect new research, test publisher policies, and technological developments, such as advances in telehealth.

TPO Affect Test Performance and Validity

The impact of TPO on examinee performance has long been one of the foundations upon which neuropsychologists base objections to the presence of an involved observer in their evaluations. Test performance can be affected by many factors, such as distraction by repetitive loud noises, frequent interruptions by persons entering the room, or the mere fact of being observed, leading to difficulty maintaining focus, encoding and remembering new information or increased anxiety.

The presence of TPO—whether in person, electronically, or through a recording device—may influence an examinee or examiner response. A considerable body of scientific literature addresses the deleterious effects of an observer's presence on an individual's task performance, despite the best efforts to remain unobtrusive. Observer effects have been noted in precisely the cognitive domains often in question in the context of medicolegal or forensic evaluation including memory, attention, processing

speed, and executive functions (Kehrer, Sanchez, Habif, Rosenbaum & Townes, 2000; Horwitz & McCaffrey, 2008; Eastvold, Belanger & Vanderploeg, 2012). These modifications in performance unnecessarily raise the risk for misinterpretation of results obtained under observation or monitoring conditions, and make direct comparison of other data difficult, such as with prior evaluations not performed under TPO conditions (Lewandowski et al., 2016). Neuropsychological tests are reliable and valid measures of neurocognitive capacities (brain–behavior relationships) when administered pursuant to the rigorous, controlled conditions under which they were created. Varying testing procedures and conditions across two examinations, one with an observer and one without, may compromise comparison of results.

Observer effects have been reported whether the observer was present for the purpose of considering the examinee (Eastvold, Belanger, & Vanderploeg, 2012) the examiner (McCaffrey, Lynch & Yantz, 2005), or when the purpose of examination was not explained (Horwitz & McCaffrey, 2008). Similar findings were observed when TPO was performed via video recording device (Constantinou, Ashendorf, & McCaffrey, 2005) or audio recording device (Constantinou, Ashendorf, & McCaffrey, 2002). Because observer effects are significant when the context is medicolegal or forensic, and when the observer has a stake in the outcome, TPO is opposed even if the third party is a neuropsychologist retained to observe the examination.

In addition to observer effects on neuropsychological test performance, the presence of a TPO may impact validity of test administration and interpretation of results (Constantinou, Ashendorf, & McCaffrey, 2005; Eastvold, Belanger, & Vanderploeg, 2012). Tests are developed and standardized in the absence of TPO, and evaluation procedures rely on uniform testing conditions and administration. Introduction of a factor not accounted for in test administration and standardization may jeopardize reliability, validity, and interpretation of assessment results.

To summarize, TPO can affect the cognitive functions most often assessed in forensic or medicolegal settings and may impact interpretation and comparison of test results. Consequently, testing conducted in the presence of a TPO is not consistent with best practices in clinical neuropsychology, may interfere with obtaining accurate data in a neuropsychological examination, and therefore jeopardizes the accuracy of decisions and judgments made by the trier of fact when based on these data.

TPO Conflicts with Ethical Guidelines and Code of Conduct

The presence of third-party observers during neuropsychological test administration potentially conflicts with the American Psychological Association's Ethical Principles of Psychologists and Code of Conduct (APA, 2017), which sets forth general principles and ethical standards. The ABPN policy statement on TPO (Lewandowski, Baker, Sewick, Knippa, Axelrod, & McCaffrey, 2016) describes these areas of conflict in detail. In short, the General Principles of Beneficence and Nonmaleficence, Fidelity and Responsibility, Integrity, and Justice encourage optimal standards of practice (which preclude presence of a TPO); when these are eroded, the outcome may compromise the data interpretation, diagnostic opinion, and recommendations, which have direct impact on public welfare.

APA Ethical standards of Competence and Assessment (2017) are likewise in conflict with the presence of TPO. These include standards, 9.01 and 9.02 (Basis and Use of Assessments), 9.06 (Interpreting Assessment Results), and 9.11 (Test Security), which advise adherence to standardization procedures, reporting limitations to interpretation validity, and maintaining test security. Similarly, The Standards for Educational and Psychological Testing (American Educational Research Association, 2014) advise that clinicians must create a test setting with minimal distractions (Standard 15.2). Thus, in addition to the practical matter of test validity, allowing the presence of TPO may place the clinician in violation of ethical and practice standards. Furthermore, TPO and/or recording/monitoring of evaluations present a dilemma for neuropsychologists in that non-qualified individuals could influence test selection by proxy: in order to minimize test content disclosure or observer distraction effects, neuropsychologists may alter the test selection. The influence of TPO on test selection conflicts with a position statement on test selection from NAN that explicitly warns against influence of test selection by unqualified third parties (Fazio, Roebuck- Spencer, Denney, Glen, Bianchini ... Scott, 2018).

Finally, it is clear that professional ethical principles and standards require test administration, transcription, and interpretation of responses in a manner consistent with standardization procedures and in a manner that ensures valid assessment of underlying abilities without undue influence of extraneous factors on performance. Thus, a priori suggestions that clinicians will behave unethically without observation or recording are inconsistent with professional standards and principles. On occasion, an attorney for an examinee, or their proxy, may demand TPO for their client, citing the potential for malfeasance on the part of the neuropsychologist. It is our position that such a claim is inappropriate given that it is contrary to best practices in the field of neuropsychology, and rather than safeguarding the testing process, may actually introduce error in the test data gathered.

TPO Impact Test Security and Public Safety

TPO is objectionable in addition, because the practice may violate professional and ethical standards to protect the confidentiality of test materials. The 2017 APA Ethical Code Standard 9.11 (Maintain Test Security) asserts that psychologists “maintain the integrity and security of test materials and other assessment techniques,” and Standard 9.04 specifically notes the importance of protection of test materials, including “manuals, instruments, protocols and test questions, or stimuli,” all of which risk disclosure when direct observation or recording is allowed.

Indeed, APA has long asserted that psychologists must protect materials from third parties (APA, 1999). The American Educational Research Association, the National Council on Measurement in Education, and APA Standards for Educational and Psychological Testing (2014) state that “test users have the responsibility to protect the security of tests, including that of previous editions” (Standard 9.21).

Test security is of paramount importance for public safety. Valid and reliable neuropsychological assessment rests on the assumption that a test taker has not been exposed to test content or structure. The United States Supreme Court, in *Detroit*

Edison Co v NLRB, 440 US 301 (1979), reinforced this notion when it moved to protect future test integrity by prohibiting disclosure of test content to non-psychologist petitioners. Prior exposure to test materials may alter client responses to the stimuli and interfere with valid test score interpretation, and accurate conclusions cannot be drawn from the assessment. When test materials are not adequately secured, the public may have exposure to manuals, test instructions and answers, and testing procedures. Subsequently, the utility of the tests is diminished, neuropsychological evaluations are less effective, public safety is at risk, and persons are deprived access to a valid evaluation.

Neuropsychological tests are used for high-stakes decisions, such as to determine suitability for surgery, the ability to safely work as a pilot or police officer, access to academic accommodations, fitness to parent, the ability to stand trial, the need for medication and other treatment, and return-to-play decisions following a sports concussion, to name a few. Neuropsychologists must be able to use tests and interpret scores according to standardized administration, comparison to normative data, and assurance that the test takers have not been previously exposed to the materials and procedures. Unfortunately, published studies have shown that preparation for psychological testing is supported by a majority of attorneys (Spengler, Walters, Bryan, & Millspaugh, 1995), which highlights the importance of test security as it relates to the need to protect test content and procedures. Inability to perform neuropsychological evaluations that adhere to ethical and test administration and interpretation guidelines places the general public at risk.

Consensus of Other Organizations on TPO

National psychology and neuropsychology organizations, state psychological associations, international partners, consensus standards for psychological assessment, and test publishers (Psychological Assessment Resources, Pearson Assessments, MHS Assessments, Green's Test Publishing) are unified in opposition to TPO during neuropsychological test administration. Organizations with published statements pertaining to the opposition to TPO include the American Psychological Association (APA Committee on Psychological Tests and Assessment, 2007), several U.S. state psychological or neuropsychological associations (e.g., Colorado, New York, and Virginia), the Canadian Psychological Association (CPA), the National Academy of Neuropsychology (NAN), the American Academy of Clinical Neuropsychology (AACN), and the American Board of Professional Neuropsychology (ABN).

The Standards for Educational and Psychological Testing (2014), published by a joint committee of American Educational Research Association, the American Psychological Association, and the National Council on Measurement in Education, assert that test administration should follow standard procedures and minimize distractions, both of which are inconsistent with TPO.

Many Courts Have Agreed That TPO Should Be Prohibited

Many courts have agreed that TPO should not be allowed in forensic or medicolegal evaluations; however, court decisions have varied by case, region, and jurisdiction.

Neuropsychologists who encounter TPO demands in medicolegal/forensic cases are encouraged to work with the retaining party to craft a formal response to any such motion, often in the form of an affidavit, detailing the arguments against and potential negative consequences of allowing TPO, including those outlined in this position statement, accompanied by supportive documents. Should there be an adverse ruling or motion to compel TPO, neuropsychologists should weigh their options carefully and consult legal and ethical guidance as appropriate.

TPO Presence Conflicts with Test Publisher Policies and User Contracts

The majority of psychological and neuropsychological tests are copyrighted and users of psychological and neuropsychological tests are subject to strict credential review by test publishers. As users of copyrighted materials, neuropsychologists are required to maintain test security and to ensure that the materials are not shared with persons unqualified in their use and interpretation. TPO with a stake in the outcome of the evaluation have a potential incentive to distribute test content which would violate copyright protections and other mandates designed to protect test materials from unnecessary exposure to unqualified persons.

Test publishers require specific user qualifications and security of test content. Three major test vendors (MHS Assessments, Pearson Assessment, and Psychological Assessment Resources, Inc.) publish statements indicating release of test content is subject to the trade secret exemption, "Protection of Trade Secrets," cited in Section 1172(e) of Health Insurance Portability and Accountability Act (HIPPA, 1996). The test vendor statements note the potential for public harm if test integrity is compromised and note there are limited alternative measurements, should copyrighted and confidential content be released. Another test publisher, Green's Publishing, has a user contract specifying that misuse or unauthorized distribution of test materials will result in revocation of the clinician's license to use the test (P. Green, personal communication, July 26, 2019).

Therefore, TPO and recording potentially violate trade secrets and jeopardize the integrity and security of test content in a manner that places the clinician at risk of losing test user contracts, and thus access to tools of the trade.

Telehealth Developments

Following the outbreak of coronavirus disease in 2020, hospitals and clinics nationwide were temporarily closed to mitigate against rapid spread of the virus. Thus followed a dramatic increase in the use and reimbursement for "remote" or telehealth appointments by mental health professionals and neuropsychologists. Given the nature of remote testing, there is potential for observer effects, test content disclosure, and examination recording, which are significant threats to the validity of test results and test security. As Miller and Barr (2017) write, "There would be nothing in place to prevent someone from recording the assessment via external device or simply writing items down for future reference ... even video feeds of the assessment would not be able to entirely safeguard against this."

Despite the increasing use of teleneuropsychology, TPO standards still apply and are recognized by clinicians and researchers. Marra, Hamlet, Bauer, and Bowers (2020) note that at least one test publisher, Pearson Assessments, requires documentation of examinee agreement not to record testing or reproduce materials. The authors recommend examiner attention to test security and validity, and amending consent forms to prohibit recording and to reflect the possible unknown effects of video-based assessment. The InterOrganizational Practice Committee (IOPC) issued recommendations for teleneuropsychology (Bilder et al., 2020), noting there are insufficient data to establish guidelines for modification of routine testing for telehealth. Furthermore, cognitive assessments performed in teleneuropsychology studies tend to be very brief and targeted, appropriate for limited conditions and contexts without the presence of a potentially adversarial or even invested observer. In contrast, independent neuropsychological examinations done in a litigation context are much more extensive and subject to observer effects given the examination's potential impact on the outcome of a case. Thus, the research supporting basic cognitive teleneuropsychology screening in specific targeted populations cannot be generalized to medicolegal/forensic evaluations. Therefore, the TPO policy in the current paper is unchanged by recent developments in teleneuropsychology, consistent with literature differentiating between presence of a paraprofessional technical administrator or video monitoring in a brief clinical screening, and the TPO and monitoring associated with medicolegal or forensic examinations.

Conclusion and Looking Ahead

Neuropsychological evaluation is an integral part of diagnosis and treatment for a wide range of medical and psychiatric conditions, with demonstrated clinical (Watt & Crowe, 2017) and economic value (Glen, Hostetter, Roebuck-Spencer, Garmoe, Scott... Espe-Pfeifer, 2020). Third party observation presents a threat to the validity and reliability of data collection and interpretation, potentially conflicts with ethical standards, and poses risks to the public by eroding utility of vital clinical measures that cannot be replaced in a timely or cost-effective manner. The longstanding NAN, AACN, and ABN policies, which are in opposition to TPO in neuropsychological evaluations, are maintained.

Acknowledgements

This position paper is a summary of current issues and positions regarding the policy of third party observers in neuropsychological testing. This paper has been approved by the National Academy of Neuropsychology (NAN) Board of Directors, the American Academy of Clinical Neuropsychology (AACN) Board of Directors, and the American College of Professional Neuropsychology (ACPN) of the American Board of Professional Neuropsychology (ABN). The authors thank NAN Policy and Planning committee members Robin Hilsabeck, Shawn Acheson, Scott Sperling, Patricia Espe-Pfeifer, Tahlia Bragg, Jason Bailie, and Mollie Colvin for their review and suggestions regarding this article.

Conflict of Interest

The authors have no disclosures.

References

- American Academy of Clinical Neuropsychology (2001). Policy statement on the presence of third party observers in neuropsychological assessments. *The Clinical Neuropsychologist*, 15(4), 433–439. <https://doi.org/10.1076/clin.15.4.433.1888>
- American Educational Research Association, American Psychological Association, & the National Council on Measurement in Education (2014). *Standards for educational and psychological testing*. Washington D.C.: American Educational Research Association.
- American Psychological Association (1999). Test security: Protecting the integrity of tests. *American Psychologist*, 54, 1078. <https://doi.org/10.1037/0003-066x.54.12.1078>
- American Psychological Association, Committee on Psychological Tests and Assessment. (2007). *Statement on third party observers in psychological testing and assessment: A framework for decision making*. American Psychological Association, Washington D.C. <https://www.apa.org/science/programs/testing/third-party-observers.pdf>.
- American Psychological Association. (2017). *Ethical principles of psychologists and code of conduct*. American Psychological Association, Washington D.C. <https://www.apa.org/ethics/code/ethics-code-2017.pdf>.
- Axelrod, B. & Barth, J., Faust, D. Fisher, J., Heilbronner, R., Larrabee, G., Pliskin, N. & Silver, C. (2000). Presence of Third Party Observers During Neuropsychological Testing: Official Statement of the National Academy of Neuropsychology. *Archives of Clinical Neuropsychology*, 15(5), 379–380. <https://doi.org/10.1093/arclin/15.5.379>
- Bilder, R. M., Postal, K. S., Barisa, M., Aase, D. M., Munro Cullum, C., Gillaspay, S. R. et al. (2020). InterOrganizational practice committee recommendations/guidance for teleneuropsychology (TeleNP) in response to the COVID-19 pandemic. *The Clinical Neuropsychologist*, 34, 1314–1334. <https://doi.org/10.1080/13854046.2020.1767214>
- Canadian Psychological Association (2009). Position statements: The presence of involved third party observer in neuropsychological assessments. Retrieved March 26, 2021, from <https://cpa.ca/aboutcpa/policystatements/#Thirdparty>.
- Colorado Neuropsychological Association (2011). *Official position of the Colorado Neuropsychological Society regarding audio or video taping of neuropsychological evaluations*.
- Constantinou, M., Ashendorf, L., & McCaffrey, R. J. (2002). When the third party observer of a neuropsychological evaluation is an audio-recorder. *The Clinical Neuropsychologist*, 16(3), 407–412. <https://doi.org/10.1076/clin.16.3.407.13853>
- Constantinou, M., Ashendorf, L., & McCaffrey, R. J. (2005). Effects of a third party observer during neuropsychological assessment: When the observer is a video camera. *Journal of Forensic Neuropsychology*, 4(2), 39–47. https://doi.org/10.1300/J151v04n02_04
- Detroit Edison Co v NLRB, 440 US 301 (1979).
- Eastvold, A. D., Belanger, H. G., & Vanderploeg, R. D. (2012). Does a third party observer affect neuropsychological test performance? It depends. *The Clinical Neuropsychologist*, 26(3), 520–541. <https://doi.org/10.1080/13854046.2012.663000>
- Fazio, R.L., Spencer, T.R., Denney, R.L., Glen, E.T., Bianchini, K.J., Garmoe, W.S., Hostetter, G., & Scott, J.G. (2018) *The role of the neuropsychologist in selecting neuropsychological ... tests in a forensic evaluation*. Position Statement by the National Academy of Neuropsychology. [https://nanonline.org/docs/ResearchandPublications/PositionPapers/Test%20Selection%20Statement%20Approved%202-15-2018%20\(002\).pdf](https://nanonline.org/docs/ResearchandPublications/PositionPapers/Test%20Selection%20Statement%20Approved%202-15-2018%20(002).pdf).
- Glen T, Hostetter G, Roebuck-Spencer TM, Garmoe WS, Scott JG, Hilsabeck RC, Arnett P, Espe-Pfeifer P. (2020) Return on Investment and Value Research in Neuropsychology: A Call to Arms. *Archives of Clinical Neuropsychology*, 24;35(5):459–468. PMID: 32219365. <https://doi.org/10.1093/arclin/aaaa010>

- Health Insurance Portability and Accountability Act of 1996, Pub Law No. 104-191, 110 Stat 1936. <https://www.gpo.gov/fdsys/pkg/PLAW-104publ191/pdf/PLAW-104publ191.pdf>.
- Horwitz, J. E., & McCaffrey, R. J. (2008). Effects of a third party observer and anxiety on tests of executive function. *Archives of Clinical Neuropsychology*, 23(4), 409–417. <https://doi.org/10.1016/j.acn.2008.02.002>
- Inter Organizational Practice Committee (2014). Letter to the Supreme Court of British Columbia regarding audio recording of neuropsychological evaluations. Retrieved March 26, 2021, from <https://www.nanonline.org/docs/PAIC/PDFs/IOPC%20audio%20recording%20of%20IME.PDF>.
- Kehrer, C. A., Sanchez, P. N., Habib, U. J., Rosenbaum, G. J., & Townes, B. D. (2000). Effects of a significant-other observer on neuropsychological test performance. *The Clinical Neuropsychologist*, 14(1), 67–71. [https://doi.org/10.1076/1385-4046\(200002\)14:1;1-8;FT067](https://doi.org/10.1076/1385-4046(200002)14:1;1-8;FT067)
- Lewandowski, A., Baker, W. J., Sewick, B., Knippa, J., Axelrod, B., & McCaffrey, R. J. (2016). Policy statement of the American Board of Professional Neuropsychology regarding third party observation and the recording of psychological test administration in neuropsychological evaluations. *Applied Neuropsychology. Adult*, 23(6), 391–398. <https://doi.org/10.1080/23279095.2016.1176366>
- Marra, D. E., Hamlet, K. M., Bauer, R. M., & Bowers, D. (2020). Validity of teleneuropsychology for older adults in response to COVID-19: A systematic and critical review. *The Clinical Neuropsychologist*. <https://doi.org/10.1080/13854046.2020.1769192>
- McCaffrey, R. J., Lynch, J. K., & Yantz, C. L. (2005). Third party observers: Why all the fuss? *Journal of Forensic Neuropsychology*, 4(2), 1–15. https://doi.org/10.1300/J151v04n02_01
- MHS Assessment (2020) MHS: Test disclosure policy. Retrieved March 26, 2021, from <https://mhs.com/test-disclosure-policy/>.
- Miller, J. B., & Barr, W. B. (2017). The technology crisis in neuropsychology. *Archives of Clinical Neuropsychology*, 32(5), 541–554. <https://doi.org/10.1093/arclin/acx050>
- National Academy of Neuropsychology Policy, & Planning Committee (2000). Presence of third party observers during neuropsychological testing: Official statement of the National Academy of Neuropsychology. *Archives of Clinical Neuropsychology*, 15(5), 379–380.
- National Academy of Neuropsychology (2000). Official position statement on test security. *Archives of Clinical Neuropsychology*, 15(5), 383–386.
- New York State Association of Neuropsychology (2014). *Letter to New York State Worker's Compensation Board, Re: Adopted Regulations Amendment of 12NYCRR 300.2 (IME Regulation)*.
- Pearson Assessments. (2018). *Legal policies*. Retrieved March 26, 2021, from <https://www.pearsonassessments.com/footer/legal-policies.html>.
- Psychological Assessment Resources, Inc. (2020). *Legal: PAR's privacy and legal policies*. Retrieved March 26, 2021, from <https://www.parinc.com/Legal>.
- Spengler, P. M., Walters, N. T., Bryan, E., & Millsbaugh, B. S. (1995). Attorneys' attitudes toward coaching forensic clients on the MMPI-2: replication and extension of attorney survey by Wetter and Corrigan. *Journal of Personality Assessment*, 102(1), 56–65. <https://doi.org/10.1080/00223891.2018.1501568>. Epub 2018 Aug 30. PMID: 30160527.
- Virginia Neuropsychological Association (2006). *Policy statement on the presence of third party observers in forensic neuropsychological assessments performed in the commonwealth of Virginia*.
- Watt, S., & Crowe, S. F. (2017). Examining the beneficial effect of neuropsychological assessment on adult patient outcomes: A systematic review. *The Clinical Neuropsychologist*, 32(3), 368–390. <https://doi.org/10.1080/13854046.2017.1414885>
- Zasler, N. D. (2019). *Limiting expert witness evaluation in cases of traumatic brain injury is unwise*. June 6, 2019. Virginia Academy of Clinical Psychology Electronic Announcement-Vital.