Peer-Reviewed Forensic Consultation: Safeguarding Expert Testimony and Protecting the Uninformed Court

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Criticisms of the ethical and professional shortcomings of forensic consultation and expert testimony have long been the burden of forensic science. Forensic expert testimony derives its relevance from fidelity to the evidence and to the science. The very necessity of forensic science expertise – providing specialized knowledge to the courts where judges and juries lack such training – has enabled unscientific or Machiavellian expert testimony to contaminate or derail justice. An unsupervised process enables advocacy, money, prestige, and indirect validation for research agendas and grant support. An absence of accountability allows justice to be steered away from science by the scientists themselves.

Accountability is lacking within forensic science consultation and especially in the mental health disciplines. Expert witnesses, in contemporary American forensic science, are answerable only to themselves. A literature review reveals several peer review systems that hold expertise accountable for both written reports and spoken testimony. Advances of recent years demonstrate different ways forensic science consultation incorporates peer review. Peer reviewed forensic science is an important methodological solution for ineffective and unethical forensic science assessment, promoting integrity, quality, and confidence in justice.

Criticisms of the state of forensic expert practices inspired by the recent National Academy of Sciences report to Congress (Committee on Identifying the Needs of the Forensic Sciences Community, 2009) are louder versions of longtime rumblings directed at the forensic science community. Questionable procedures and dishonest expert testimony have shadowed the integrity of forensic science for a number of years (APA, 1997; Applebaum, 1992; Brent, 1982; Chadwick & Krous, 1997; Eitel, Hegeman, & Evan, 1997; Friend, 2003; Hammond & Schwartz, 2005; Sales & Simon, 1993; Hagen, 1997; Weintraub, 1996). Attorneys invested in the adversarial system turn a blind eye, prioritizing towards the securing of an opinion to promote settlement, or an ultimate win at trial. It is not their responsibility to discern whether they are delivering objective, evidence-based testimony. Consequently, few attorneys ever take the initiative to regulate forensic expert testimony beyond cross-examination of opposing experts, let alone navel-gazing at those specialists they have retained.

The certitude with which expert witnesses may present their opinions, and the tenacity with which they defend those opinions, leads courts to expect experts of the two sides to present remarkably

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The common reaction by non-scientists viewing the spectacle is that different experts will view the same data differently. Why then should expertise be reduced to “different perspectives,” if science aims at truth and greatest certainty? When individuals seek a second opinion from another expert doctor for a medical condition, a different expert interpretation is the exception, not the rule. This is because disciplines exist as sciences due to consensus over the meaning of evidence. Science as defined through the individual perspective of a single specialist is no longer science.

This curious disconnect between the real world and the court arena when it comes to the frequency of “difference of opinion” reflects the tension of the adversarial system. Judges, however, have dealt with this idiosyncratic expression of “scientific” opinion with detachment. Courts aim to ensure that both sides have a fair opportunity to present scientific expert opinions (Nicholson & Norwood, 2000). Limiting corruption and conscious expert witness subterfuge and its devastating impact on a case is not a responsibility actively taken on by courts (Wettstein, 2005). What the court thus allows science, under such a lower threshold of reliability, no longer reflects mere differences on the fine points of interpretation.

Even in the aftermath of Daubert and progeny, courts’ intervention to ensure best practices and even standard practices in forensic assessment is limited. Daubert and Frye proceedings challenge primarily novel science (Robertson, 2010). The seemingly established science presents to the court in a fashion completely dependent upon the integrity of the involved expert.

The softer the science, the less documented the points raised before the court and the more expert witnesses are able to exploit the court’s comparative lack of expertise. Most judges and attorneys feel that such underhandedness is the modus operandi of the untrained. On the contrary – it is the modus operandi of the best trained, because they know the law, the procedure, the court, and they know exactly how to get away without detection. Comparable to a bank robbery that happens without a trace – naturally, the lead suspect would be a person with the access to the vault, the awareness of the schedule, the different employees and their roles, and what the cameras watch and what they do not.

Trial attorneys who have witnessed their share of frivolous testimony regard expert witnesses with cynicism. The scientific community is passive in the face of that askance. Organizations have done little to police themselves over the years. It took the report of the National Academy of Sciences, only in 2009, to instigate the forensic sciences to committed discussion about how to elevate standards (Skane, & O’Leary, 2008; Sandra Day O’Connor College of Law, 2010; Committee Member, 2010).

Chadwick & Krous (1997) noted that, if the current state of expert testimony does not improve, “ultimately, the justice system may give up on us” (Chadwick et. al, 1997; Committee on Medical Liability; 1989). Although rarely censured, dishonest or unscrupulous testimony tarnishes the reputation of the forensic sciences as a whole. Expert witness dishonesty draws comparatively little mention in the NAS report and reactions to it (Committee on Identifying the Needs of the Forensic Sciences Community, 2009).
Addressing this serious forensic science problem is a remote prospect in 2010. What is more immediately realistic, however, is a resolution of the lack of accountability and oversight before recording opinions and proffering testimony in front of an untrained jury.

This review first details the vast scope of this problem within the forensic science community of expert witnesses providing inappropriate opinions and testimony, how courts handle this issue within case contexts, and the potential miscarriages of justice that can stem from a lack of oversight. Secondly, a literature review provides a synopsis of those peer review systems currently utilized throughout varying disciplines and theories for future use. Lastly, a solution-focused detailing of prospective forensic peer review consultation practice offers guidance for forensic consulting and forensic scientists/clinicians to build from. Only through an acknowledgment of the scope of problematic practices and the incorporation of long-standing scientific techniques, can the justice system fully appreciate this systemic problem and bring out the best in itself to promote scientific accuracy.

QUALIFICATION AND THE PATINA OF EXPERTISE

Inappropriate expert opinion can take the form of unqualified, uninformed, biased or frankly dishonest testimony. Dramatic as each sound, these flaws may be difficult to detect. The expert’s intent is a key factor and more than one shortcoming may coexist.

Incompetent testimony arises from a number of factors that include a lack of understanding of the scientific-legal issues at hand or unfamiliarity with the relevant literature regarding the forensic question (APA, 1997; Sales et. al, 1993). Incompetent testing using inappropriate methodology is another such example. Training and continuing education as well as a study and fluency of the proper methodologies establish competence. Courts and attorneys, however, may not have the sophistication to detect shallow training, background, or unacceptably limited experience.

Deliberately uninformed, biased, and/or dishonest testimony enables the expert witness to use his/her discretion to effect miscarriage of justice. Courts remain unaware of this frightening circumstance because lack of accountability allows the best-trained expert witnesses to leave no detectible evidence of what they have done.

Unqualified testimony originates from specialists who have insufficient expertise in their sub-discipline, either for lack of training or outdated knowledge. Board certification is one measure available to courts to appraise qualification within a given discipline (National Association of Medical Examiners, 2003). Courts should also ensure that board certification is updated, and how often one would be expected to recertify to demonstrate continued competence. As science, specifically the behavioral sciences, is ever changing, one’s expertise may become outdated, and an expert witness who was qualified to testify ten years earlier should not automatically resume ‘expert’ status in the court’s eyes upon returning to the stand on even the same issue. Although numerous licensing agencies now mandate a sufficient number of continuing education hours, courts rarely place emphasis on an expert updating one’s knowledge.

Some expert witnesses who lack board certification or updated recertification clearly demonstrate an expertise in a relevant area. However, the burden to establish this proficiency belongs on the expert and not the court.
Voir dire can expose a lack of qualification. However, many courts overlook significant points of qualification, such as the nature of updated experience in a given area, or demonstrated fluency for the updated research in a topic area.

A person may be a most accomplished developmental psychologist, for example, but have no relevant experience to contribute to forensic questions relating to an adolescent defendant’s dispute of his confessions. To appreciate science is to grasp how particularized qualification is.

Beyond certification in a specialty, there are many areas within subspecialties to master. Cases sometimes present experts with questions beyond their core proficiencies. Some experts will carefully set limits on what they may denote as expertise; other experts, once qualified, may go far beyond boundaries (Perri & Lichtenwald, 2000). The attorneys on both sides are often too untrained in fine points to recognize when the emperor has no clothes.

**EVIDENCE VS. NON-EVIDENCE BASED FORENSIC PRACTICE**

The validity of forensic expert opinions depends upon the quality and quantity of evidence available. Forensic psychiatrists or psychologists, neuropsychologists, neuroradiologists and most other forensic scientists resolve the different possibilities for equivocal evidence through collateral input that establishes the most likely explanation. History is the foundation of sound medical diagnosis, and so the medical model has great relevance to how forensic science should serve the court. Objective sources of information provide context to the raw data results of tests and scales. Even subjective sources may enhance the validity of findings, so long as the expert accounts and adjusts for the biases and agenda of the source.

One of the great shortcomings of today’s courts is a readiness to entertain psychological opinions that derive exclusively from the self-serving account of a litigant or a battery of tests. The litigant is thus able to exploit the gravitas of an expert who relays his account, and layers it over with “expertise,” in lieu of the litigant taking the witness stand himself.

In addition, expert mental health opinions routinely incorporate only a fraction of relevant factual information and corroborating evidence readily available about an examinee.

One way to account for a difference of opinion between opposing experts is to examine the sources informing one expert witness versus the other. Often, the different opinion reflects that one expert simply did not review relevant source material. Sometimes, the expert does not think to ask. The more lazy expert witness who is producing volume-oriented, cookie-cutter expert witness work like IMEs (“independent” medical examinations) commissioned by insurance companies or other agencies may follow a formula that does not allow for necessary thinking outside the box for relevant sources. On the other hand, the less experienced expert witness will not recognize what source materials might be accessible to inform the examination.

The more trained but more dishonest expert witness will take an approach of deliberately not asking or not looking for information, lest he or she learn something that would redirect that expert witness from an opinion more supportive of the side retaining him. This expert witness is uninformed, but deliberately so. This latter expert is perceptive enough to compose a seemingly complete evaluation, with a report whose chassis resembles an evidence-based report, and to present an opinion with
scientific certainty. Nevertheless, ignoring evidence ultimately lends itself to a gerrymandered data set informing the opinion. The testimony is not science but rather, impression management by an expert witness not unlike the carefully selected intonation of a spokesperson whose credentials sell credibility (United States v. Gigante, 1997).

The deliberately uninformed expert is surprisingly hard to identify. An expert can reassure the court that one’s examination has the requisite diligence by revealing all of the sources of information of one’s inquiry, along with a complete record of the questions asked and information provided by those sources. Records of the expert who chooses to remain uninformed reveal an interview, with the litigant or witnesses, in which he or she utilizes his expertise to know what not to ask and deliberately avoid areas of inquiry that would yield information that would hurt the retaining attorney’s case.

Some forensic psychologists provide legal grounds to justify intentionally not examining certain areas and avoiding administration of personality tests that would expose undesirable qualities. This advocacy asserts that examining the defendant at all might infringe upon “Fifth and Sixth Amendment rights” (Cunningham, 2006; Cunningham & Reidy, 2001). Who would contemplate the notion of a forensic chemist refusing to examine a DNA sample because it might incriminate the defendant? In this regard, as well as through the concealment of notes, forensic psychology and psychiatry forsake science for advocacy, falling to the bottom rung in the commitment to examine relevant evidence.

Willful avoidance of psychologically pertinent history is easy to conceal from opposing attorneys but not from well-trained colleagues available to the opposing counsel. Unfortunately, courts regularly tolerate mental health experts not revealing their notes. Even when courts order the release of notes, courts tolerate expert witnesses who keep illegible notes and do not insist on closely accounting for the work they performed. Agenda-driven witnesses readily exploit these loopholes and techniques (United States of America v. Brian David Mitchell, 2010).

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Biased testimony - not necessarily affected by a lack of information - is principally a polar interpretation of the available evidence. Some expert witnesses’ bias reflects their orientation as fundamentally sympathetic toward the civil plaintiff or defense, or criminal prosecution or defendant. The expert witnesses may have biases independent from the adversarial system, be they ideological orientations, policy ramifications of the litigation, or a research agenda (Irving v. State, 1998). Whatever ambiguous information before a biased expert, the expert witness allows only one side’s possibility.

Frankly dishonest testimony distinguishes itself from the myopia of biased expertise. A dishonest expert, confronted with evidence to the contrary, will contort in every way imaginable to preserve an endorsement of a given opinion. Naturally, an expert witness who has overlooked key evidence may be defensive when having to confront such an omission. However, court testimony affords the opportunity to consider whether one has actually misled the court. Given a more complete accounting of evidence and fact, a person who adamantly ignores obviously material evidence exposes their dishonesty.
Occasionally, an expert witness enables dishonest testimony by deliberately hiding information from the court (United States of America v. Brian David Mitchell, 2010). An expert may misrepresent facts to the court or misquote from an interview. These actions may be especially difficult to detect. As in earlier examples, those who are most destructive to the system are those who are fluent enough to speak just over the head of the court to the end that such fraud is not obvious.

**REMEDIES**

Stringent standards for admissibility of expert witnesses (Sales et. al, 1993), the adoption of ethical guidelines by professional organizations (The Ethics and Practice Committees of the Child Neurology Society, 1998) and the utilization of peer review (Garret, 2005) include some of the proposed resolutions for incompetent and unscrupulous expert testimony.

Of these proposals, peer review is an especially promising avenue for remedying the current state of expert testimony. Involving peers introduces accountability from those with the erudition to gatekeep what judges’ limited scientific expertise cannot. Peer review employed prospectively, while the consultation is in process, disciplines the evaluation at multiple steps and emphasizes quality control rather than the sanctions of a retrospective approach. If the goal is good science, addressing the problem after the fact cannot repair all the damage done.

Already, peer review serves both an educational and sanctioning function and is an existing gatekeeper for objectivity in both clinical and scholarly work as well as in accreditation processes. Peer reviewed forensic consultation (PRFC) has strong support within the scientific community (Committee on Medical Liability, 1989; APA Position Statement 1991; Cooperstein, 1998; Garret, 2005; Lauer, 2002; Sadoff, 1998; Spielman, 2002); one study noted that 76.6% of practitioners endorsed implementing peer reviewed forensic testimony (Eitel, et. al, 1997).

PRFC improves competence, disciplines methodology, safeguards justice, reinforces prosocial motivations in the contributing expert community, and reduces grounds for appeal.

**DIFFERENT APPROACHES TO PEER-REVIEW AND PEER-REVIEWED FORENSIC CONSULTATION (PRFC)**

PRFC has some features in common with the peer review practices applied in clinical, scholarly, and accreditation contexts. All provide oversight and accountability to enhance the quality and integrity of work product. Each form of peer review, however, has distinctive features.

In clinical settings, peer review typically involves clinician case chart reviews, or evaluation of a specific treatment program or service. Clinical peer review aims to assess the extent to which the provided treatment meets the prevailing professional standards; and, to improve the overall quality of care received by education and an open exchange of ideas (Gillig, & Barr, 1999; Luiselli, & Russo, 2005; Van Weert, 2000).

The interactivity in clinical peer review allows the clinician to have an active role in the oversight process, which in turn informs the peer reviewer of subtleties that may not be readily apparent in the medical chart. Peer reviewers are often senior faculty, whose oversight represents the preferences and policies of the given department and who are accountable to reflecting well on the interests of the institution. Peer review is part of their compensable responsibilities to the department.
Peer review in the publication context involves review of submitted manuscripts, with an eye towards methodological soundness. The purpose of such review is to maintain scientific rigor, ensure professional relevance, assist editors in deciding which articles to publish, and to improve the quality of the manuscript (Alexander, 2005; Cooper, 2009; Foster, 2008). Publication peer review involves critical feedback or outright rejection, but no interactivity with the author. While usually not financially compensated for their input, peer reviewers reap value from the prestige of receiving distinction as peer reviewers for a particular journal.

Many publications employ blind peer review, in order to ensure that the biases of the reviewers toward a given writer do not influence an objective appraisal of the manuscript. Because the peer reviewers’ identity is also anonymous, there is no accountability for the peer reviewers’ work and their own biases. Those publications who do not employ blind peer review have abandoned it for this and other reasons, including the need to increase accountability to both the reviewers and editors (Godlee, 2002).

The recent controversy about the MMR vaccine and its link to autism, with a prestigious journal, *Lancet* (Wakefield, Murch, & Anthony, 1998), retracting a published article twelve years after it had successfully passed peer review (Deer, 2011), demonstrates blind peer review to be far from foolproof in its ability to provide an imprimatur of scientific legitimacy.

One of the study’s authors, Andrew Wakefield, had accepted large sums of money to conduct the false research at the outset, planning to assist in a lawsuit against the vaccination company down the line (Deer, 2011).

Although the original article on the MMR study passed a *Lancet* blind peer review, the study had skewed the results of its 12 participants. For instance, researchers diagnosed three of nine participants with regressive autism. Only one, however, had the illness. Similarly, the participants had all been afforded the description of “previously normal”, when five participants had pre-existing conditions (Wakefield, et. al, 1998; Deer, 2011).

The *Lancet* article, which sparked a 13.1% decline in the MMR vaccination, culminated in May 2010, with two of the authors, Wakefield and Walker-Smith, removed from the medical record by the General Medical Council after a 217-day inquiry for serious professional misconduct. The General Medial Council cited misrepresentation and factual inaccuracy of the findings and the blatant unethical conduct they displayed in accepting pecuniary gain for the skewing of his data (Deer, 2011).

Laboratories, academic institutions, medical training programs and centers, as well as other entities, submit to accreditation peer review to assess whether they meet established standards and guidelines. Accreditation programs use peer review for on-site inspections and in the review of applications. These programs utilize checklists to ensure quality and improve performance (ACGME, 2009; American Board of Forensic Toxicology, 2009; College of American Pathologists, 2010; National Association of Medical Examiners, 2003). Grant writing and research proposals also engage in peer review for oversight and quality assurance (Bielski, Harris, & Gillis, 2007).

Peer reviewed forensic consultation (PRFC) can be undertaken both prospectively and retrospectively. The more primitive application of peer review in forensic consultation has been a
A retrospective review of trial transcripts and/or reports (Applebaum, 1992; Chadwick, et. al, 1997; Friend, 2003; Eitel, et. al, 1997; Shields, 1992). In some organizations, peer review has been a voluntary academic activity, made available to educate psychiatry experts on improving their reports, and to assist them in enhancing the integrity of their court testimony (Applebaum, 1992; APA, 1997).

In a regulatory context, retrospective peer review has enabled organizations to police flagrantly dishonest testimony (Shapira & Kuhlmann, 2001). Retrospective peer review occurs after testimony and may arise when sanctions are considered.

PRFC may also involve a review of the forensic consultation in progress, or testimony prior to its presentation in court, ensuring quality and accuracy (Burgess, Welner, & Gillis, 2010; Personal Interview, 9/17/2010 & 10/13/2010; Personal Interview, 9/23/10). Utilizing peer review in this prospective fashion also helps to identify and prevent possible dishonest testimony before it happens (APA, 1997; Eitel, et. al, 1997; Shields, 1992).

Prospective PRFC addresses several issues unreachable by retrospective designs. For example:

1) Prospective peer review aims at promoting the quality of science introduced to the court, whereas retrospective peer review serves a punitive and disciplining purpose.

2) Retrospective peer review is dependent upon selective reporting by a disturbed opposing witness, or selective reporting by a practitioner of a sample of their work. In prospective peer review, however, no self-selecting character or aggrieved emotions initiate the process.

3) A significant portion of litigation settles before trial. Retrospective peer review allows for oversight only in those cases that extend all the way through the process. Prospective peer review can safeguard the science before a misleading report or inadequate analysis unfairly influences trial or even settlement negotiations.

4) Oversight before testimony can prevent injustice. Retrospective peer review may discipline a particular expert witness, but does not have the regulatory power of an appellate court and cannot negate the damage.

Literature on PRFC systems is limited. Research of systems known to be in place informs future directions and development of best practices in forensic psychiatry, forensic psychology, and other forensic sciences.

**Methods**

This current appraisal of peer review systems included a literature review from three scientific databases: LexisNexis, and Psych Info/Psych Articles (operating in a joint search function). The following phrases, “peer reviewed expert testimony”, “peer reviewed forensic testimony”, “peer reviewed expert witness”, peer reviewed forensics, peer reviewed forensic consultation, forensic science peer review, forensic peer review, and “peer review” AND “expert testimony” yielded over 4,000 documents.
Those peer review systems detailed below includes those discovered in the literature search as well as the features and methodology of two other active PRFC yielded through telephone interviews with chief medical examiners.

Results

The literature search revealed both theoretical and active peer review systems. Theoretical peer review systems suggest ways in which peer review could resolve problems within particular disciplines. Active peer review systems are those systems already implemented.

THEORETICAL PEER REVIEW SYSTEMS

Scientifc Colloquia and Clearinghouse

Pinsky (1997) proposed peer review protocols for judges faced with making determinations on the admissibility of expert testimony. Peer review would initiate after experts submit reports to the court and judges would utilize peer reviewers prior to allowing expert testimony in order to inform the court whether the proposed testimony would be both relevant and scientific. Peer review, as Pinsky notes, “is, after all, the method of choice for science itself (Pinsky, 1997 pp 13)”.

One alternative offered is the establishment of a Clearinghouse for the Federal Courts. Acting as a hub, the ‘central clearinghouse’ would afford judges the opportunity to submit proffered materials and specifically request a Daubert evaluation. Judges could provide detailed questions they would like addressed in the evaluation or submit a set of general instruction for the clearinghouse to utilize during the review.

The Clearinghouse would have experts in the appropriate disciplines on hand to review the aforementioned materials. By utilizing federal agencies already conducting scientific peer review of funding proposals, the clearinghouse would have a strong talent pool. Incentives such as stipends or grants would assist in increasing experts’ participation. In order to prevent burnout, limits would be set on the amount of reviews each expert could conduct each year.

Potential problems with this proposed system include the anonymity of the reviewers and therefore, a lack of accountability for the quality or biases of the reviewers. Furthermore, because the peer review occurs after submitting the report, oversight does not enable deficient work to be refined to the point where it can more fittingly assist the court. Rather, it is limited to critique. In addition, the expert under review does not have the opportunity to challenge their conclusions. However, the reviewers do not have the final say in Daubert evaluations, but assist the judge in making his determination.

This is even more significant a problem when peer reviewers originate from pools of the research and grant review sector. Research specialists lack applied specialty expertise for the forensic setting. The two worlds are as distant as the academic and clinical arenas (APA, 2010). The application of psychiatry to the forensic setting is also very different from the clinical setting (Helping Psychology, 2009), as is the application of pathology, toxicology, and other sciences that frequently intersect with the law (G. Kupferschmidt Consulting Services Ltd, 2004).
All too often, issues presented to the forensic consultant demand experience in the presentations one sees in forensic settings that a specialist does not encounter elsewhere (such as violent actions), as well as relevant sources of data unique to the forensic setting. A pool of peer reviewers that did not boast forensic experience would be less qualified than the forensic examiners they would be charged to oversee – yet would be empowered with gatekeeping influence.

A second proposal is the “Judicial Colloquia.” Held in open forum rather than in an adversarial hearing, Judicial Colloquia allow opposing experts, attorneys, the judge, as well as the clerks present in the court to ask questions. Its utilization would aim to improve both the efficiency of the process and the education of the court. Experts from both sides describe the methodology utilized and subsequent open dialogue between the two sides’ experts allows for open discussion and potential resolution on differing points (Pinsky, 1997). The purpose of the colloquia is to educate the court on methodology so that a judge can make a determination regarding admissibility under Daubert. The Judicial Colloquia is not so much an oversight as it is an informal pre-pre-hearing. Unfortunately, the process does not afford protection against one participant who merely argues better than does the opposing expert.

Pinsky’s proposals offer judges and the court opportunity for educational insight and assistance in judicial decision-making, potentially reducing the need for Daubert motions and in limine hearings. Explained Pinsky, peer review “represents the sole mechanism for objective evaluation of the merits of proffered material.” (Pinsky, 1997 pp 10)

**A ‘Psycholegal Nexis’**

The ‘Psycholegal Nexis Proposal’ calls for enhancing the value of forensic psychology through the creation of a “peer-reviewed, systematic case study database that documents model forensic psychology practice (Fishman, 2004 pp178).” Outlining significant issues that need to be discussed in testimony in both hard-copy and online databases, experts could be barred from presenting their findings at trial, if the court determines that they will not be addressing the specific factors laid out in the ‘Psycholegal Nexis’.

Slobogin (2003) proposed such a database of model cases that would outline significant factors for different types of forensic matters and serve as a guideline for the admissibility of expert testimony. This process would occur during an admissibility test that is less stringent than a formal Daubert hearing.

The Psycholegal Nexis would operate for courts through a newly created journal–peer-reviewed for quality, able to accommodate the vast amount of case studies expected and ultimately separated into two operating vehicles, the hub and the spokes. The hub of the system would provide an ongoing methodological, epistemological, and pragmatic vehicle that would concern itself with the nature and conduct of particular case studies and would maintain the archived case study collection. Here, forensic experts from various fields would take part in ongoing discussions and would be expected to take part in the critical review of the impact of ‘Psycholegal Nexis’ and its standards and to assist in the evolution of new standards. Operating in conjunction with the hub, the spokes makes up the entirety of the case study archive section. Divided into subsections, the focus of this section would be specialization and content (Fishman, 2004 pp 196).
Challenges towards the implementation of this proposal notably include the difficulty of obtaining a random sample of forensic reports that would be truly representative and clearly unbiased. Furthermore, there is such a qualitative variance in forensic casework, even among the most published academics who would no doubt be positioned in the hub, that the academic elite who controlled the standards would raise the bar no higher than they themselves presented in their casework.

Moreover, forensic reports are not accessible for all cases and the very factors that make them available may contribute to their inappropriateness for the Psycholegal Nexis. These include advocacy by the expert or the attorney that retained them, or ideological agendas such as one witnesses in death penalty, battered women, custody, and a host of other litigation.

Consent would also influence the availability of reports, as there is often the need to account for multiple authorities when accessing reports: the forensic clinician, the defendant/plaintiff undergoing evaluation, his/her attorney, and/or the facility in which the clinician conducts the assessment (Fishman. 2004 pp 186).

The 'Psycholegal Nexis' proposes to utilize peer review in a forward-thinking manner. By reviewing the case studies and reports of previous forensic clinicians and examiners, the possibility arises to elevate forensic standards and move forensic psychology toward a more scientific and systematic interpretation of events.

**Forensic Neuropsychology**

Aside from acting as expert witnesses themselves, neuropsychologists assist in the review and evaluation of opposing experts’ evaluations, actively peer reviewing their colleagues, although explicit standards requiring active peer review have yet to be established (Johnson-Greene & Bechtold, 2002).

The need for a standardized set of ethical guidelines for forensic neuropsychologists conducting peer-review of their colleagues' work inspired a 2002 proposal. Recommended guidelines for the forensic neuropsychologist who participates in peer review include a clarification of his/her role, keeping in mind that all depositions, reports, etc. are viewable by the court. The forensic neuropsychologist should also properly demonstrate professional expertise and be mindful not to offer to review a colleague if he/she is not competent in that particular area. Finally, the exposure of any unethical behavior discovered during the peer review would have a proactive use in repairing the current testimony or report and prevent future unethical behavior (Johnson-Greene et. al, 2002 pp 103).

**Committee on Social and Legislative Issues of the Society of University Surgeons (SUS)**

After interpreting legal precedent and current practices, the Committee noted, “a significant concern about the lack of regulation and oversight of expert medical witness testimony in depositions and at trial (McHenry, Biffl, Chapman, & Spain, 2005 pp 275).” The SUS aims at an ultimate goal of deterring malfeasance in expert witness testimony (McHenry, et. al, 2005 pp 277).
In order to provide accountability, the SUS proposes peer review of transcripts of testimony in peer-reviewed journals. Experts invited to conduct the peer review would offer comments after parsing through the submitted transcripts.

The SUS and other medical organizations have alternative reasons for policing expert testimony. Malpractice litigation against surgeons has contributed to prohibitive legal costs and has driven many otherwise competent surgeons out of practice. Accountability for surgeons who participate in the pillaging of their colleagues does not aim to contribute to justice, rather to protect the economic interest of doctors. For this reason, an advocacy organization’s peer review mechanism that selectively evaluates transcripts has heavy professional pressures to concentrate on scrutinizing the work on behalf of plaintiffs in malpractice suits.

**Cardiology**

Cardiologist Michael S. Lauer proposed a voluntary form a of peer review for his and other specialties whereby experts could submit reports for pretrial review (Lauer, 2002). Once selected by professional societies, the peer reviewers review and revise the submitted reports, and offering queries for experts. Should they deem it necessary, peer reviewers can reject the reports as well.

In court, judges would explain peer review to juries who would consequently consider experts whose reports are peer reviewed more credible in court (Lauer, 2002 pp 564). The cache of such a system would motivate forensic professionals to submit their work for such critical scrutiny. Moreover, the Lauer system enables prospective correction and upgrading of a consultant’s work.

**American Academy of Pediatrics**

Guidelines written for pediatricians in February 1989 specifically detailed the need to distinguish between ‘medical maloccurrence’ and ‘medical malpractice’ (Weintraub, 1999). Like the SUS proposal above, these specialty-defined distinctions enable the organization to create structure that outflanks malpractice accountability from civil courts. If the specialty makes it more difficult for its own to support allegations of breaches of standard, a prospective pediatric witness finds it more difficult to testify on behalf of the plaintiff.

Expanded in 1994, the qualifications and guidelines outline responsible practices and key legal concepts (Committee on Medical Liability, 2002). Proposals to monitor expert witness testimony include varying strategies such as “standardizing and regulating expert medical case review, analysis, and testimony, and holding academic institutions accountable for the testimony of their faculty members” (Committee on Medical Liability, 2002 pp 977). Practicing experts and physicians engaging in peer review of their work would experience clarity in the feedback received from their colleagues, referred to as the ‘light of day phenomenon’ (Brent, 1982). However, to date, the American Academy of Pediatrics has not proposed a defined methodology for peer review, merely stating in its guidelines that members should be prepared to have their work subject to peer review.

**Child Neurology Society**

The goal behind this effort is to ensure that expert witnesses in child neurology are able to support statements made in court. A proposal for a Medical-Legal Peer Review Committee of the Child
Neurology Society, composed of senior child neurologists (Shield, 1992), would assist in assuring accuracy and integrity of testimony.

Initiating peer review with the Medical-Legal Peer Review Committee, a member of the Child Neurology Society would formally submit a complaint to the Committee, charging impropriety. The physician under review may receive a letter drafted by the Committee, requesting specific details about the case in question. Review of depositions and trial transcripts for impropriety would enable the Committee to determine whether the expert witness evidenced no impropriety or clearly made dishonest and inaccurate determinations and statements (Shield 1992 pp 238).

**The National Child Protection Training Center**

Peer review and its contribution to improving interviewing skills are well established (Vieth, 2009 pp2). The National Children’s Alliance mandates members to participate in a formalized peer review process for forensic interviews; however, a formal peer review process is not yet established (Vieth, 2009 pp 195).

Peer review would analyze adherence to protocol and to the law, focusing on corroborating evidence in the interview (Vieth, 2009 pp3). Oversight in this system would follow an interview and precede testimony. The internal review would occur prior to submitting a report, allowing a more rigorous oversight. Peer review under this proposal, promotes the learning process for forensic evaluators without inspiring defensiveness because it is not investigative in nature (Vieth, 2009 pp4).

**Sexual Assault Nurse Examiner Programs (SANE)**

The International Association of Forensic Nursing (IAFN) notes that the Sexual Assault Nurse Examiner (SANE) must adhere to protocols in evaluating patients and contends that the inclusion of a peer review process would assist in ensuring this. A formalized peer review process in the SANE program aspires towards “increased confidence of the judicial system, and the program’s accountability and credibility will soar (Gorham, 2008).”

Using the peer review system of Inova Fairfax Hospital/Inova Fairfax Hospital for Children as a model, the proposed SANE peer review would begin with a SANE coordinator checking the written report for factual representation utilizing incident photographs to assure reporting validity. A third party reviewer would ensure that the report is clear, understandable and accurate prior to submitting the report to law enforcement.

Staff meetings would allow for case reviews – especially advantageous in difficult cases - and promote active discussion of documentation and report-writing issues. A ‘peer-review sheet’ containing documentation of the assault, would not provide any confidential information about the patient, allowing for a complete review of the SANE’s work on the case (Gorham, 2008 pp 23). The validity of documentation, ensured through SANE peer review would leave law enforcement better equipped to handle the complexities of sexual assault cases.

Unlike other theoretical models, the SANE proposal aims at prospective enhancements to justice, as opposed to other organizations’ focus on retrospective discipline of inappropriate work.

**ACTIVE RETROSPECTIVE FORENSIC PEER REVIEW SYSTEMS**
Japan’s Model Project for Medical Practice Deaths

Questionable deaths in Japan’s hospitals - including the use of a syringe containing a toxic disinfectant as opposed to the heparin solution the nurse believed it contained - led Japanese medical societies to issue a joint declaration in 2004. Calling for the creation of a review system that would investigate unexpected deaths and offer preventive solutions, the health ministry launched the “Model Project for the Investigation and Analysis of Medical Practice-Associated Deaths”, in September 2005. The program has since expanded across Japan since its inception (Leflar, 2009).

The initiative for a review must come from the hospital and the requests relate to patient death’s that may be due to medical management issues. Three physicians unaffiliated with the hospital under review - a clinical pathologist, a forensic pathologist and a specialist in the field of the patient's illness, conduct an autopsy on the victim. In conjunction, a separate ‘evaluation committee’, including members of the autopsy team, an attorney and outside medical experts, review medical records and interview hospital staff who interacted with the patient, ultimately preparing a medical evaluation report.

The report summarizes the record findings as well as the autopsy findings, shared with both the family of the deceased and hospital under review. To make the public aware of this information, a redacted and summarized version of the report is prepared (Leflar, 2009 pp 9). Reviews are specific only to death investigations and only a hospital can request a review, which limits the extent of The Model Project’s application (Leflar, 2009 pp 10-11).

American Academy of Neurology

The 2006 qualifications and guidelines for members of the American Academy of Neurology (AAN) include the requirement that members of the Academy must communicate their expert opinions with attorneys, courts, licensing boards and peer reviewed bodies. As a part of general practice, the guidelines state, “a medical expert should be aware that testimony in legal proceedings generates a public record that is subject to peer review and may be the basis for disciplinary actions by the courts, licensing agencies, or professional organizations (Williams, Mackin, Beresford, Gordon, Jacobson, McQuillen, Reimsheisel, Taylor, Bernat, Rizzo, Snyder, Sagsveen, Amery, & Brannon, 2006 pp 13-14).

The AAN requires those who believe an expert proffered egregious testimony to submit a complaint to the Grievance and Legal Affairs Committee, who review the testimony at issue. At least one neurologist has received censorship through this peer review.

American Association of Neurological Surgeons (AANS)

Established in 1983, the American Association of Neurological Surgeon’s peer review program retrospectively reviews complaints of egregious expert testimony and conduct. A peer review committee reviews evidence for malfeasance, ultimately holding a hearing with the accused member present and deciding upon the proper sanctions to impose (Friend, 2003). Between 1997 and 2002, the American Association of Neurological Surgeons reported a dismissal of 30% of complaints, based on lack of merit. Thirty five percent of cases received a letter of censure, and 25% of
physicians received a suspension, while 5% of cases resulted in an expulsion from the AANS (American Academy of Otolaryngology Head and Neck Surgery Foundation, 2007).

One physician filed suit against the AANS after the peer review committee passed down a six-month suspension for his questionable testimony. Presiding Judge Richard Posner of the United States Seventh Circuit Court of Appeals (Posner, n.d.) noted in his opinion, “judges are not experts in any field except law” and they “need the help of professional associations in screening experts (Friend, 2003 pp 411).” In maintaining that AANS’ peer review program was correct in suspending the physician, Judge Posner noted that the strong interest in the improvement in the quality of health care meant that, “more policing of expert witnessing is required, not less (Friend, 2003 pp411).”

**American Academy of Otolaryngology-Head & Neck Surgery Foundation (AAO-HNS)**

The 1980s sparked interest for a peer review system in the AAO-HNS, with the Board of Governors petitioning the Board of Directors to investigate reports for misleading testimony. The Board of Governors concluded that this task would result in a multitude of lawsuits, leading to eventual bankruptcy within the AAO-HNS (American Academy of Otolaryngology Head and Neck Surgery Foundation., 2007). This concern alone demonstrates the magnitude of the problem of unethical testimony as well as the powerlessness of professional organizations to police their own.

In 2003, members of the AAO-HNS voted to include a peer review process as part of the guidelines and qualifications of membership. The AAO-HNS Foundation’s peer review process begins when a member submits an allegation of professional misconduct. The Academy’s Ethics Committee reviews all supporting documents and, if necessary, forwards the claim to the accused member.

An investigative panel holds a closed hearing for evaluation of the complaint, ultimately recommending appropriate sanction or action to the complainant, respondent and Board of Directors. Sanctions include a letter of censure, a suspension or possible expulsion. In order for censure or expulsion to occur, two-thirds and three-fourths majority of the Board must vote for censure or expulsion, respectively (American Academy of Otolaryngology Head and Neck Surgery Foundation., 2007).

Such a system treats dishonest testimony in such a way that it would have to reach a level of sufficient outlandishness to draw meaningful punishment. In that regard, discipline for fraudulent testimony requires a far higher threshold than that used by experts to deem a colleague’s work malpractice. That inequity alone speaks to the inadequacy of this peer review system.

**American College of Obstetricians and Gynecologists (ACOG)**

The American College of Obstetricians and Gynecologists put forth member guidelines in 1987, in which testifying physicians prepare their testimony for peer review (Weintraub, 1999). The American College of Obstetricians and Gynecologists established a Grievance Committee in order to be responsive to physicians who noted improper and unethical testimony.

Peer review in this context operates retrospectively, beginning with the submission of a complaint to the Grievance Committee. If such testimony presents before the Grievance Committee, the physician reporting the malfeasance bears the responsibility of providing the Committee with
transcripts of the seemingly inaccurate testimony. Following review of the testimony, the Grievance Committee holds a hearing that can result in sanctions and removal of Fellowship of the accused members, although an appeal is possible (Hammond et. al, 2005).

**American College of Emergency Physicians**

The American College of Emergency Physicians requires that physicians make their reports, depositions and testimony available for peer review in order to qualify for the College (American College of Emergency Physicians, 2010). Peer review, for emergency physicians, acts as a corrective action for deficient conduct and includes internal discipline or remedial training to assist the physician in overcoming deficiencies (The American College of Emergency Physicians Ethics Committee, 2009-10).

**American College of Radiology (ACR)**

At its 2002 annual meeting, the American College of Radiology passed its ACR standard, noting that testifying experts' reports and testimony must be prepared to face peer review (Muroff, & Berlin, 2005). The ACR also instituted an Ethics Committee to ensure the proper investigation of allegations of malfeasance and code violations.

The standardized peer review process for the ACR begins with a complaint of unethical conduct. The Ethics Committee utilizes independent consultant radiologists to evaluate, objectively, the conduct of the expert. A review of all available materials, including the filed report, determines the necessity of further investigation. If deemed warranted, a hearing is held with the expert under review, who may have legal representation present. At the conclusion of the hearing, the Committee determines if a violation of conduct has occurred, and may levy disciplinary action ranging from censure to suspension and expulsion (Muroff, et. al, 2005 pp 421). If censure becomes final, the expert’s name will be stored in a private file; however, suspension or expulsion will result in a formal reporting of the expert’s name in the National Practitioner Data Bank (Muroff, et. al, 2005 pp 421).

**Florida Medical Association**

The American Medical Association characterizes expert witness testimony as equal to the practice of medicine and consequently, is subject to peer review (Weintraub, 1999). In keeping with this, the Florida Medical Association created a peer review system that tracks and sanctions egregious testimony of expert witnesses.

The Association appointed the Committee on Ethical and Judicial Affairs to oversee the peer review process and review complaints regarding expert witness testimony. The Committee assigns an expert in the same field of expertise to evaluate the reported malfeasance. A hearing to resolve charges of the inappropriate nature of the purported testimony may result in order to issue a sanction on the expert under review (Friend, 2003).

**The American Psychiatric Association Council on Psychiatry and Law**

Inspired by the medical community’s accreditation system, the APA designated a Council on Psychiatry and Law Task Force on Peer Review of Expert Testimony (APA, 1997). The Council’s goal for peer reviewed expert testimony is to educate experts who voluntarily submit their work...
product on how to improve their testimony and to enhance experts’ adherence to ethical guidelines. Reviewers may reach consensus during their oversight; but even without consensus, APA members understand the educational value of peer review gives it merit (APA, 1997 pp 1).

The Task Force acknowledges that, while voluntary peer review is educational and addresses the expert’s performance in an actual case, it has difficulty identifying egregious testimony and malfeasance because those experts will not voluntarily submit to peer review.

The focus of peer review is not only on the presentation of expert witnesses’ testimony and report, but also on its content. Manner and style go under review and assess objectivity, with alternative explanations given to the expert when the review suggests subjective interpretations of information. To safeguard the process of review, the review committee appoints a chair to communicate with the expert and handle the administration of documents. However, the expert is present for parts of the peer review process (APA, 1997 pp 7).

The APA Task Force on Peer Review of Expert Testimony concludes that the future should include mandatory peer review. However, this will change the obligations and role of the reviewers, forcing them to act in a sanctioning fashion, as opposed to the educational and informative role they currently play (APA, 1997 pp 7). Professional acceptance of peer review prevents expert witnesses who frequently misrepresent data from slipping through the cracks.

ACTIVE PROSPECTIVE FORENSIC PEER REVIEW SYSTEMS

Office of the Chief Medical Examiner for the State of Maryland

Peer review is a standard in the medical examiner community rather than the exception (Personal Interview, 9/17/2010 & 10/13/2010). The level of detail may vary, but forensic pathology typically utilizes peer review in case assessment.

Peer review in the Maryland Chief Medical Examiner’s Office (OCME) is multi-phased and utilizes numerous specialties in order to gather complete medical insight. Twelve to twenty pathologists in the OCME office attend morning rounds and discuss each fatality present in the building. Following this, pathologists on call begin assigned autopsies. A full mortality and morbidity presentation that afternoon allows all specialties to discuss the conclusions drawn from the autopsies and other records that may be pertinent to manner and cause of death. If cause of death cannot be determined, weekly revisiting of the case occurs as more information such as toxicology reports become available.

When certain areas of the body need special review, such as teeth, the heart, or the bones, other experts in those specialties consult and report on their findings. Drawing from both the staff and outside consults, the specialty need determines the level of separation from the OCME office.

The pathologist originally assigned to perform the autopsy compiles a report on the cause and manner of death. This report incorporates the findings of any specialists who consulted on the case. Additionally, every homicide, pediatric death under two, and undetermined non-drug deaths receive review by the Chief Medical Examiner, David Fowler, M.D. Dr. Fowler performs a paper review for these cases, some 800 a year, reviewing the chart for completeness, and language used.
Baltimore recently enhanced its facility for the Office of the Chief Medical Examiner, allowing for more depth in the peer review process. New technologies digitize autopsy photos, sample slides, records and other investigative files. This enables rapid consultations anywhere around the world, and enhanced external oversight (Personal Interview, 9/17/2010 & 10/13/2010).

Office of the Oakland County Medical Examiner’s Office, Pontiac, Michigan

The office of the Oakland County Medical Examiner’s Office serves a jurisdiction with a population of 1.2 million people. Two levels of peer review utilized there track quality and efficiency. All the pathologists in the office as well as a forensic toxicologist review the day’s caseload each morning. After completing the initial review, the pathologist on duty begins autopsies. All cases undergo review once again in the afternoon (Personal Interview, 9/23/2010).

At the second review meeting, the pathologists and toxicologist discuss cause of death with administrators and any investigators looking into each particular case. The lead pathologist for the day gives case presentations, allowing their findings to receive scrutiny by colleagues. A difference of opinion in an interpretation of facts or in the cause of death leads to a forum, as the pathologist and the dissenter must both defend their positions prior to the completion of a report. All pathologists located in the Oakland County Medical Examiner’s Office are forensic pathologists and the Society of Forensic Toxicologists certifies the toxicologist.

Dr. Ljubisa Dragovic, Chief Medical Examiner, notes the most logical and objective presentation prevails during dissenting opinion forums (Personal Interview, 9/23/2010). If a cause of death cannot be determined, the case becomes pending, undergoing further review every Friday. A dated file system allows monitoring of case progress until the pathologists make a final determination on death.

The administrative staff presents all pathologists and toxicologists with randomly chosen audit cases for review. The documentation of comments and suggestions for improvement at this stage allow for better quality in future case examination. The Deputy Chief Examiner also reviews all reports issued by deputies regarding a cause of death, also conducting random audits of past reports (Personal Interview, 9/23/2010).

Monthly reviews of child-death and domestic violence cases incorporate peer review in a multi-disciplinary setting. These panels keep the details of their discussions confidential, but all members are active in the case review. Reviews of child-death cases involve the Office of the Medical Examiner, police agencies, prosecutor’s office, protective services, hospital pediatrics, US Consumer Safety Product representatives, and a forensic psychiatrist. Domestic violence cases proceed to review by a panel of police agencies, prosecutor’s offices, two or three District Court and Circuit Court judges, a forensic psychiatrist, representatives of HAVEN (providers of domestic violence and sexual assault counseling), emergency medicine specialists, and a reporter from the local media.

The Forensic Panel

In 1998, The Forensic Panel introduced protocols for peer review into actual forensic science practice, embedding oversight on forensic psychiatry, psychology, neuropsychology, pathology, radiology and medical sciences at various stages of a case evaluation. Since it inception, The Forensic
Panel has consulted on over 150 criminal and civil cases in a range of state, federal and military courts in the United States and Canada. The Forensic Panel often engages in highly sensitive or frontier litigation specifically because of its peer review injects oversight and accountability into challenging cases in which even subtle or seemingly, minor errors can have dramatic impact in courts (The Forensic Panel, n.d.).

Under The Forensic Panel’s protocols, a scientist or clinician whose qualification and expertise relates to the forensic issue at hand acts as the primary examiner. Prior to assignment, a stringent vetting of the examiner’s qualifications, ethical background and testimony history ensure a record of fairness and integrity. The assigned primary examiner reviews records, interviews witnesses and the examinee, analyzes testing, prepares the written narrative, and testifies at deposition or trial. At intervals, the primary examiner presents the case and is accountable to the critique of two or more peer reviewers – drawn from similar and/or different disciplines as the facts demand (Burgess, et. al, 2010).

The peer reviewers, recommended according to subspecialty expertise, are assigned based upon the specific case issues that require the most careful oversight. Issues influencing the choice of peer reviewers may be cultural sensitivity (familiarity with local populations and culture-specific ideas), a niche of emerging research (e.g.; false confessions, religion-psychotherapy interface, drug-facilitated sex assault, animal activity on remains), or subspecialty expertise (e.g.; PET scanning, child neuropsychology, risk assessment measures, substance abuse psychiatry).

The peer reviewers meet with the primary examiner at different points in the forensic inquiry and the proceedings to review the evidence gathered to date. These interactive and often intense meetings are more intricate versions of the formal presentations to colleagues in teaching hospital conferences.

The priority at early stages is to account for the range of opinions and to promote objective and diligent fact-finding (Burgess, et al, 2010 pp 5). The Forensic Panel operates with an approach that is evidence-driven and de-emphasizes theory in order to limit bias.

The peer reviewers’ responsibility in a given case is to:

♦ Help define the range of scientific-legal considerations and diagnoses
♦ Safeguard objectivity
♦ Expose and improve professional blind spots in the primary examiner and each other
♦ Contribute ideas of relevant sources of information and testing
♦ Augment suggestions for questions and techniques for yielding more fruitful interviews
♦ Educate the primary examiner about relevant and emerging research
♦ Carefully vet the final opinion and report to ensure exceptional diligence, and unbiased adherence to standards of the discipline.

The peer reviewers are also available on an ad hoc basis for the primary examiner to consult with.

The Forensic Panel peer-review, by design, is not blind. The protocols afford significant advantages to legal settings when compared to blind peer review:
The interactivity of peer reviewers enables lively instruction and even debate, and a mingling of expertise drawing from different vantage points and experience.

Because the primary examiner does not operate in isolation, his or her blind spots and biases are exposed and accounted for earlier in the interaction. The peer reviewer who likewise does not operate blindly can feed off the other peer reviewers, can closely question the primary examiner or author about what may not be clear, and can reconsider his own judgments and how they may be affected by his own biases or outdated thinking.

There is also an inherent competitive quality to the interactive oversight. Peer reviewers want to demonstrate that they contribute knowledge and sophistication, and they know that another colleague is peer reviewing as well. The gravity of the exercise and a peer reviewer’s recognition that colleagues that he or she respects are part of the discussion inspires participants to approach the exercise motivated to think critically and to instruct. In blind peer review, there are no competitive pressures to give one's best effort, only to complete an assignment.

Accountability is a major advantage to non-blind peer review. The Forensic Panel’s peer reviewers sign off on a report when they approve its release. The report, vetted for diligence, objectivity, and adherence to standards earns the peer-reviewers’ certification. In so doing, peer reviewers expose their professional reputations with the same transparency of the primary examiner. A blind peer review, by contrast, lacks accountability for the oversight provided. This explains how articles can appear in peer-reviewed publications as scientifically sound, yet exposed later as deficient or even fraudulent.

The Forensic Panel oversight has the aim of correcting flaws and shortcomings in data, minimizing bias, and refining the final product. Publication and grant peer review can be content with merely rejecting an opinion; the forensic consultation has the responsibility of answering questions for the court; declining to provide answers is a last option. Thus this peer review protocol takes on the added challenge of remedying a forensic assessment’s inadequacies through peer-reviewers’ pressure on the examiner to improve his accounting for his findings, the evidence he has gathered, or to change his findings altogether.

The Forensic Panel peer reviewers assess submitted affidavits and reports for thoroughness, objectivity, and adherence to standards within the field. They discuss with the primary examiner areas that should be further explained, or better informed, and collaborate on resolving disputes that may arise over diagnoses and other clinical assertions. The primary examiner works in conjunction with the peer reviewers to make the completed report as informative and objective as it can be. Peer reviewers take responsibility for its diligence and integrity by making their identities known with the final report and upon request by opposing counsel. The Forensic Panel’s peer review aims to protect and maintain integrity and professional standards from the beginning of record review until the proffering of testimony at trial.

To date, The Forensic Panel has offered testimony in approximately 5% of the cases in which it has consulted. In numerous highly contentious cases headed for trial, opposing counsel has withdrawn proposed testimony in order to prevent The Forensic Panel’s peer reviewed opinion from presentation on rebuttal. This experience reflects that peer-reviewed forensic consultation promotes resolution before trial. With peer-reviewed discipline of the casework, both sides can appreciate the undisputable points of the science, be aware of the available evidence, account for the latest pertinent research and obtain earlier guidance as to the merits or lack of merits of the case.
The reasons for such success in case resolution include the oversight, so certified by the professionals who stake their professional reputations on their oversight by signing their names to the primary examiner’s report. Within the process, The Forensic Panel’s peer review pushes the limit to ensure maximum diligence, recognizing that work is more substantiated when based upon a much higher number and range of sources is more substantiated. Consequently, The Forensic Panel’s opinions cite to a foundation borne of greater diligence than clinical or forensic medicine. When both sides have a greater understanding of a case that improved diligence provides, and when oversight disciplines the opinion put forward, an opinion that both sides of an adversarial action can learn from and relate to is the outcome. This education of all parties promotes settlement even in contentious cases.

The process of peer review carries added costs and considerable logistic organization. However, these more than make up for themselves in the early resolution of even complex cases or those with bitter adversaries. Cost savings from preventing misdirection of justice may be huge.

The Forensic Panel’s use of the designation “peer review” itself was challenged recently in a United States District Court in Utah in *U.S. vs. Mitchell*, the well-known case of the kidnapping of Elizabeth Smart. The defense disputed use of the term “peer review” because of its differences from publication peer review. The presiding Judge Dale Kimball in *Mitchell* termed this disagreement one of “semantics,” and admitted testimony on peer review while citing the work product as “best practices in forensic psychiatry and psychology (*United States of America v. Brian David Mitchell*, 11/06/09 pp 14-15).” At the later hearing, the judge again cited the oversight of the highly qualified colleagues in an opinion on the matter that distinguished the primary examiner’s testimony as “substantially more credible (*United States of America v. Brian David Mitchell*, 03/01/10 pp 84).”

**LIMITATIONS**

In The Forensic Panel, peer reviewers do not view the entire file. The input and oversight is dependent upon the fidelity of the presentation of the primary examiner. Details omitted and overlooked can undoubtedly affect the quality of oversight. A natural solution is to have peer reviewers review the entire file; however, the costs of such undertaking would be prohibitive and impede the broader influence of peer review in a legal system that sincerely wants to secure better forensic science. In the end, peer review at intervals with colleagues who are verbally informed is far more cost-efficient. One must remember that in hospital case conference settings, the model that inspired The Forensic Panel, verbal presentation is de rigueur and has been for generations.

Selecting the right peer-reviewers is a challenge. Those with more forensic experience may also be more likely to have given testimony that reflects poorly on their integrity. For these reasons, many idealize clinicians with less forensic experience or with a research focus.

Unfortunately, the clinical application of behavioral sciences, toxicology, and pathology is very different from the forensic application. Research focus may be even more removed from the real world, and introduce “expertise” that is borne out by laboratory methodology but has no practical relevance to the issue at hand. Ultimately, it is wisest to recruit those with forensic sophistication; accounting for consultation and testimonial history increases confidence in the suitability of the participants.
Naïve experience in the forensic setting can lead to unanticipated blind spots and critical points of ignorance that do not expose themselves until well into the case. In addition, the limits of one's expertise can introduce critical problems as the case evolves and the central issues for scientific resolution change. Peer-reviewers must have the self-awareness and security to acknowledge, within a case, when they are in over their head and need another colleague to step in. That humility may be difficult to come by when a case is stocked with proud senior professionals who are being challenged by their peers within the interactivity of systems like that of The Forensic Panel.

The tension of court cases may also pose challenges in the composition of teams of primary examiners and peer reviewers. Personality conflicts within the dynamic can seep into the oversight and can create competing biases; peer reviewers can likewise attempt to dominate the examination when their role is one of oversight only. The human element that so imbues peer-review with the benefits of harnessed human wisdom is still a delicate exercise.

The logistics to dovetail with shifting and sometimes accelerating court calendars are challenging for the best medical or forensic science talent. Accomplished professionals are notoriously overcommitted. Therefore, incorporating peer-reviewed oversight adds two or more equally in-demand professionals to the organizational complexity. Without a responsible and flexible primary examiner and peer reviewers, managing the exercise can be cumbersome and even frightening.

Many overlook that when attorneys feel the evidence does not fit their case strategy, they diminish its exposure. In so doing, the best forensic science, including that refined by peer-review oversight, does not make its way into court and in front of juries because of tactical decision-making. Forensic science engages the court only at the invitation and allowance of the court. Collateral source data, which gives validity and reliability to almost any forensic evaluation, may be inadmissible hearsay in some courts. In this regard, courts discourage diligence and set a lower bar for forensic psychiatry and psychology that even the pressure of peer-reviewers cannot overcome.

The APA Task Force on Peer Review of Psychiatric Expert Testimony suggests that the reward of providing insight to others in forensic testimony and report writing may increase voluntary participation in peer review processes (APA, 1997). Once the novelty of the activity wears off, however, voluntary peer reviewers may be limited to retirees or others who have free time on their hands – precisely because they are less capable experts to begin with. Furthermore, uncompensated peer reviewers have less incentive to disclose their names in a way that would hold them accountable for the quality of their peer review. Professionals who provide peer review need to have their time valued if priority effort is expected. Busy people who remain uncompensated are those who delegate activities for which they do not feel valued, or those who lend a more cosmetic effort.

The point of peer review is to ensure the best efforts of the best qualified to provide the best possible oversight. If that does not happen, the system falters. Costs to respect the time of peer reviewers pale in comparison to the costs of injustices and ineffective litigation. Those who cynically suggest that compensating peer reviewers taints their opinion ignore the reality that bogus science comes into the court from uncompensated agency and government employees as well, and experts who have other biases independent of their affiliation.

A commonly cited methodological flaw of publication peer review is the proper venue for publication of dissenting viewpoints (Benos, Bashari, Chaves, Gaggar, Kapoor, LaFrance, Mans, Mayhew, McGowan, Polter, Qadri, Sarfare, Schultz, Splittergerber, Stephenson, Tower, Walton &
Zotov, 2007). Peer reviewers in The Forensic Panel achieve a consensus on points of contention prior to signing-off on an expert’s report in a prospective PRFC approach. Points of dissent are accessible in cross-examination and even in disclosure of draft reports. In that vein, medical examiners’ offices and The Forensic Panel reflect the hospital model of patient care – a doctor who presents a case to colleagues, for example, does not return to the patient to explain that there is dissent among the colleagues. Rather, that doctor reconciles dissent, adjusts and changes what is necessary in order to conform to best practices. The same endpoint of the DSM diagnostic manual has enabled diagnosis to come together in spite of a range of perspectives.

**IMPLICATIONS AND FUTURE DIRECTIONS**

There have not yet been formal investigations to assess the effect peer review has had on dishonest/unscrupulous or incompetent/uninformed testimony. The only empirical information available is the modification and evolution of efforts on each case in prospective peer review systems that incorporate critical feedback of the peer reviewers. The Forensic Panel’s most experienced members, senior professors and even highly experienced department Chairman, all acknowledge the improvement in their work by virtue of this oversight. Future empirical research could assess, both quantitatively and qualitatively, the effects of forensic peer review on report preparation, testimony presentation and case outcome. Triers of fact, as well as prosecutors and defense attorneys, could provide an understanding of their experiences with forensic scientists/clinicians both before and after the incorporation of a peer review system.

Based on the current analysis of PRFC and peer review literature, future research should focus on the continued development of prospective peer reviewed systems. Active implementation of PRFC systems will optimize forensic assessment and advance a justice system in which expert testimony without oversight will acknowledge its lack of validation, for all of the reasons noted above. Research on the impact of the current retrospective peer review schemes in reducing dishonest or incompetent testimony will resolve whether such regulation is a necessary adjunct to prospective oversight.

**DISCUSSION**

Similarities emerged in the review of retrospective peer review approaches. The involved medical organizations initiate their peer review after a member filed a complaint. These organizations desire to regulate unscrupulous expert witnesses who testify dishonestly against colleagues in malpractice proceedings. A review process of the report/trial transcripts, a response from the accused expert, and a hearing assisted colleagues and organizations in the determination of culpability and punitive sanctions. Sanctions for egregious expert testimony and protocols for retrospective oversight may discipline otherwise unethical expert witness practice. The process is dependent upon the initiative experts are willing to take to report others. History has yet to support that physicians necessarily report expert witness malfeasance unless personally victimized by such dishonesty in malpractice litigation, for example. The proliferation of proposed approaches for retrospective peer review demonstrates awareness that the problem of dishonest expert testimony is real and reflects corruption more than it does incompetence. However, organizations are leery of legal challenges by members and therefore reserve meaningful sanctions for only the worst offenders.
Within forensic psychiatry and psychology, and other disciplines, there is exceptional tolerance for dishonest testimony and other expert witness chicanery. Until expert witnesses are inspired to report unethical and fraudulent practices in the way colleagues report Medicare fraud and improper sexual relationships, utilization of peer review will remain rare.

The literature on prospective peer review lacks empirical studies on the effects this peer review has on court cases. In contrast to retrospective peer review systems, prospective approaches are not as uniform in their methodology. The common end goal, however, is the qualitative improvement of the work product of expert consultants before it reaches the courts for presentation as testimony. It is clear that proper oversight would have prevented the fiascos of unethical expert witness behavior cited earlier in this article. The course of the cases of Timothy Masters and Brian David Mitchell cases, in particular, demonstrate that the miscarriages of justice could easily have remained undiscovered. Prospective peer-review would have captured the inadequacy and lack of objectivity manifested in these cases and others.

Active peer review systems, such as those of many medical examiner offices and The Forensic Panel, have effected large-scale implementation of forensic peer review. Such example in practice demonstrates that prospective peer review aiming to promote the integrity of forensic science and to restore confidence in its potential is a realistic goal.

CONCLUSION

Prospective peer review consultation systems carry enormous potential for upgrading the integrity of the forensic sciences, given their focus on enhancing justice before injustice occurs. Prospective improvements to justice are always less financially and emotionally costly, because they aim to prevent injustice in the first place. Reflecting on the numerous ethical breaches in expert testimony resulting in miscarriages of justice, it is undeniable that forensic consultation with prospective peer review would have realistically prevented many tragedies. The powerful force of collegial oversight underscores prospective peer review’s value to justice and forensic science reform.

Peer reviewed forensic consultation engages prevailing shortcomings affecting otherwise unregulated forensic science expert witness testimony. Retrospective systems offer the recourse of disciplinary sanctions in select cases. Prospective systems offer education, ethical oversight, enhanced quality control for diligence and examination of methodology, in conjunction with the advantage of remediying substandard work before it influences justice. The demonstrated benefit of peer oversight seamlessly woven into forensic casework is an important advance to American justice.

More widespread development and optimization of peer review forensic consultation will enable refinement of how to integrate prospective peer review into different case settings and among different forensic sciences. In the climate of soul searching following the scathing 2009 critique in the National Academy of Sciences report, however, one solution for enhancing the integrity of forensic science is already maturing quite nicely.
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