I7 The Forensic Quality Challenges of the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5TM) and Neuroscience

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After attending this presentation, attendees will be better able to utilize the *DSM-5TM* to embrace the challenges of evaluating biological advances in neuroscience on several fronts.

This presentation will impact the forensic science community by offering a basis for keeping performance up-to-date and improving as advances take place in psychiatric nosology and behavioral science.

The mental health profession expected the *DSM-III* to provide an opportunity for the enhancement of psychiatric research. Remaining neutral with regard to causality, it provided a disciplined phenomenological approach for reliably reducing symptom-based criteria to distinct diagnoses. Researchers and clinicians alike expected to see significant advances in the understanding and treatment of mental illnesses. This would become possible since all professionals, including forensic behavioral scientists, would henceforth be speaking the same language with regard to diagnosis, including both major headings and subtypes. With the study of more rigorously defined disorders that would thus become possible, it seemed reasonable to anticipate increasingly valid conclusions about their biology, their psychology, and their treatment. Not surprisingly, the *DSM-III* duly became a fixture of forensic behavioral science as well.

Some three decades later, the publication of *DSM-5TM* arrived to a rather more subdued reception, with clinicians widely predicting that they and their colleagues will largely ignore it as being little different from the *DSM-IV-TRTM*. The head of the National Institutes of Mental Health predicted a similar response from the research community, explaining that as strong as the phenomenology-based consensus may have become, it remains but a summary of opinion offering disappointingly little biology.

The urging for biomarkers to associate definitively with mental disorders has remained frustrated despite many advances in research on brain and mind. Experts have explained this disparity in terms of both the powerful influences of culture on human behavior and the complexity of the brain itself. In particular, there was a widespread expectation that the publication of *DSM-5TM*, if not *DSM-IV*, would include diagnostic biomarkers in one or more of the dementias, an expectation that went unfulfilled.

Since then, the pace of research into mental disorders has been increasing. In addition to the dementias, especially promising areas now include the epigenetic tracing of substance abuse disorders, computer-assisted comparisons of literally thousands of brain scans, and the prospect of continuous Electroencephalograph (EEG) monitoring with minimally obtrusive headsets.

From these and other advances, some not yet predictable, forensic behavioral experts can expect challenges and opportunities. At the same time, a current set of practice guidelines from the American Academy of Psychiatry and the Law, states that withdrawing support from the *DSM* is not an option, at least in North America.[1] This is based on its widespread use and its familiarity to the legal profession. Through the responsible use of evidence, we, as a profession, can make the *DSM-5TM* a platform for contributing to progress in the understanding of the mind, normal and abnormal. We possess, through tradition and training, the potential to understand developments in the neurosciences. Thus, we can contribute to the ongoing *DSM* process as we ensure continuing quality improvement in our own work.

Reference(s):

1. AAPL Task Force on a Forensic Assessment Guideline: AAPL practice guideline for the forensic assessment. *J Am Acad Psychiatry Law* 43:S1-S53, 2015

DSM-5TM, **Neuroscience, Quality**

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