Striving for Accuracy in a "Noisy" World: Recognizing Bias and Error in Forensic and Clinical Decision-Making

Level
Intermediate

CE
CPA/BBS/BRN/CJER/MCLE

Track
Clinical/Legal

Bio
Joseph Lockhart, PhD, ABPP
Jerry is Board Certified in forensic psychology and has been involved in forensic mental health, correctional mental health and forensic assessment for over twenty years. Currently, Jerry is an SVP Evaluator with the Forensic Services Division of the Department of State hospitals, where he conducts risk (such as offenders with mental disorders and sexually violent predators) and adjudicative competency assessments. Jerry has authored several articles on cognitive bias with Saty Satya-Murti, separate articles on malingering and the statistics of risk prediction, as well as conducting research on the reliability of SVP assessments. Other interests include Refugee/Asylum evaluations, statistics and keeping his Pugs content.

Saty Satya-Murti, MD, FAAN
Saty is a Fullbright scholar, neurologist and health policy consultant. Although retired from clinical practice, he frequently consults with major pharmaceutical and medical device companies seeking federal approval. Saty has authored many peer-reviewed scientific articles and book reviews, and has written several book chapters and articles on the history of medicine. He is an Editorial Board member for the journal of "Neurology: Clinical Practice." His other interests include solar cooking, xeriscaping, grandparenting and volunteering.

Narrative
Error and bias are increasingly recognized as problems in medical and forensic evaluations. These problems are ubiquitous: they affect fields from violence risk assessments to forensic pathology, and visual tasks such as eyewitness identification to radiology. Prior assumptions, base-rate unawareness, extraneous but seemingly relevant information and personal human cognitive limitations carry the potential for misdiagnoses or error.

Human decision-making, even without bias, is often "noisy." Both noise and bias introduce errors in human judgement. Studies by experts demonstrate a surprisingly high level of variability, both between experts, and even when the same expert is asked to make a second judgment. This is "noise"; while this "noise" can often be quantified in the clinical and forensic domains, it typically remains invisible until deliberately studied.

This presentation will provide attendees with recent, significant examples of clinical and forensic bias and error, chosen from both literature and popular culture. It will discuss the relevant empirical research, including recent research on visual errors (including eyewitness testimony) and how task-irrelevant factors may affect medical diagnostic and forensic pathology determinations. It will also discuss the potential impact of "noise" in decision-making and how it may affect expert conclusions.

Finally, it will suggest approaches to mitigate bias and errors, with recommendations as to how the forensic expert may convey these complex topics in testimony.

Learning Objectives
Provide two examples of fields of forensic science that have been found to be affected by bias.

Define three common biases in forensic decision-making.
Provide a definition of "noise" in decision-making, and how it can lead to unacceptable differences both between and within experts.

Provide three strategies for "de-biasing" and improving forensic decision-making.

Provide at least one strategy for reducing "noise" in clinical and forensic decision-making.