Methodology Matters: Critical Thinking and Advanced Research Methods

Symposium Chair: Kevin L. Nunes, Ph.D.
Carleton University

Research is the foundation of effective assessment, intervention, and policy aimed at reducing sexual offending. Although the state of scientific knowledge in this area has increased dramatically in recent decades, there is still much more work left for researchers to do. In this symposium four papers will highlight important methodological issues for research on sexual offenders. The first paper will examine the conclusions researchers in this area draw from the available empirical evidence. The second paper will present a developmental life course approach to studying the causes and course of sexual offending. The third paper will illustrate techniques for investigating and optimizing the conceptualization and measurement of constructs relevant to sexual offending. The fourth and final paper will distinguish between speculation and evidence in the risk assessment literature. Together these papers illustrate exemplary approaches to conducting informative research on sexual offenders and prudently interpreting the available evidence.

Jumping to Conclusions? Inferences about the Causes of Sexual Offending

Kevin L. Nunes, Ph.D.
W. Eric Filleter, B.A. Honours
Chloe Pedneault, B.A. Honours
Sacha Maimone, M.A.
Carolyn Blank, B.A. Honours
Anna T. Pham, B.A. Honours
Maya Atlas, B.A. Honours
Carleton University

Identifying causes of sexual offending is the foundation of effective and efficient assessment, intervention, and policy aimed at reducing sexual offending. However, studies vary in methodological rigor and the inferences they support, and there are differences of opinion about the conclusions that can be drawn from ambiguous evidence. To explore how researchers in this area interpret the available empirical evidence, we asked authors of articles published in relevant specialized journals to identify (1) an important factor that
may lead to sexual offending, (2) a study providing evidence of a link between that factor and sexual offending, and (3) the inferences supported by that study. Participants often endorsed interpretations and conclusions that went beyond the methodological rigor of the study they identified. Our findings suggest that many researchers may not be adequately considering methodological issues when making inferences about the causes of sexual offending. Although it is difficult to conduct research in this area and all research designs can provide valuable information, sensitivity to the limits methodology places on inferences is important for the sake of accuracy and to stimulate more informative research. We propose that increasing awareness and respect for methodology in the research community through better training and standards will advance scientific knowledge about the causes of sexual offending, and improve the effectiveness and efficiency of practice and policy.

Goals of the Paper:
1. Review basic research methodology and the inferences generally supported by different research designs;
2. Report and interpret our findings on the conclusions researchers in this area draw from the available empirical evidence;
3. Make recommendations for increasing awareness of and sensitivity to the connection between methodology and inferences.

Sexual Offending from a Developmental Life-Course Approach: Methodological Issues and Challenges

Patrick Lussier, Ph.D.
Université Laval

A first generation of research on sexual offending emerged several decades ago whose main objective was to provide a clinical profile of individuals having been convicted for a sexual offense. These empirical studies were generally based on small clinical samples of individuals using retrospective data mainly from a single informant. A second generation of research followed in the 1980s focusing on persistence in sexual offending over time. This second generation of empirical research introduced longitudinal research designs to study sexual recidivism and the impact of treatment/interventions on individuals who had been released from prison. This line of research only looks at individuals at two points in time, irrespective of their age, their social context, and the developmental stage of their offending. These two generations of research contributed to depicting of sexual offending as the result of a rather static predisposition or proclivity toward sexual offending and reoffending. This static perspective cannot explain the low continuity of sexual offending across the adolescence-adulthood transition, the low sexual recidivism rates observed
across studies and the age-effect on recidivism. More specifically, the bulk of research produced by these two generations are not well-suited to describe and explain the onset, course, and termination of sexual offending (Blokland & Lussier, in press; Lussier & Cale, 2013). A third generation of research recently emerged, using prospective longitudinal data to address these issues and has produced new insights as to the development of sexual offending as well as the heterogeneity across individuals involved in sexual offenses (e.g., Lussier & Blokland, 2014). A developmental life course perspective has been formalized and proposed as an organizing framework to study the origin and development of sexual offending (Lussier, 2014). From this perspective, sexual offending is approached as a dynamic phenomenon that evolves over time and across development stages. The current presentation will focus on the key methodological issues and challenges measuring dynamic changes in sexual offending over time. Developmental and life course methodologies will be introduced and findings presented to study the dynamic changes in offending over time and associated age-graded developmental risk and protective factors.

Goals of the Paper:
1. Introduce developmental life course perspective and its concepts to study sexual offending
2. Present research methodologies used by developmental life course scholars
3. Present issues and challenges associated with the study of sexual offending from a developmental life course perspective

Latent Structure:
Its Importance for Clinical Utility, Prediction, and Research Strategy

Franklyn J. Graham, M.S.
Brandeis University

Raymond A. Knight, Ph.D.
Brandeis University

The importance of knowing the latent structure of constructs has long been articulated (Meehl, 2001; Meehl & Golden, 1982). Failure to map diagnostic decisions onto latent structures has seriously impacted the validity of the Diagnostic and Statistical Manuals (DSM) and has led to a serious problem of co-morbidity across diagnoses (Kendell, 1989; Meehl, 1999). Despite the current DSM-5’s (American Psychiatric Association, 2013) attempt to incorporate more dimensional structures, the implications of latent structures have largely been ignored. This presentation will examine the significance of evaluating latent structure and its cascading effects in the areas of clinical assessment, predictive validity, and empirical research. We will focus on the assessment of a construct that is...
directly relevant to sexual offending—the measurement of hypersexuality. Using data on both offenders and non-offenders, we will discuss and illustrate the implications of the results of recent taxometric investigations that have consistently found across varied samples and measures that hypersexuality is distributed as a dimension (Graham, Walters, Harris, & Knight, 2015; Walters, Knight, & Långström, 2011).

A main priority of clinical assessment is to determine whether a client meets the criteria for specific diagnostic decisions (e.g., in a categorical decision: disorder present vs. not present) so that appropriate treatments or dispositions can be initiated. Knowledge of latent structure informs decisions about where to place critical boundaries to maximize correct assignment. For instance, for categorical constructs there is purportedly an objective cutoff that marks a “difference in kind” boundary. One maximizes discriminability and minimizes total decision error by using this cutoff (Meehl, 1992; Widiger & Clark, 2000). Dimensional constructs, such as hypersexuality, require a balanced assessment strategy that strives for equal discrimination across the entire continuum and empirically determines maximal decision cutoffs for specific purposes, such as determining the point at which clinically significant distress becomes apparent and should be addressed (J. Ruscio et al., 2006). Misclassification resulting from arbitrary, unvalidated cutpoints can impede correct clinical assessment and negatively impact measurement error and statistical power (Maccallum, Zhang, Preacher, & Rucker, 2002; Preacher, Rucker, Maccallum & Nicewander, 2005). Research strategy is similarly affected, with categorical structures benefiting from the use of extreme group designs (EGD) and dimensional structures being best assessed with latent trait model-based approaches (Preacher et al., 2005). Assumptions can also be made regarding potential etiological causal paths (Meehl, 1992, 2004), with categorical latent structures suggesting more specific etiological causes (e.g., specific genes or environmental stressors) and dimensional structures hypothesized to be multiply determined (Meehl, 1992).

Although several conceptualizations of hypersexuality have imposed a categorical framework on the construct (Goodman, 2001; Kafka, 2010), most measures of hypersexuality have been dimensional in nature, even though ultimately these measures have often employed cut points to identify those “high” and “low” in hypersexuality (J. N. Hook, Hook, Davis, Worthington, & Penberthy, 2010; Kalichman et al., 1994; P. Carnes, Green, & S. Carnes, 1991). As indicated above, taxometric analyses support a dimensional distribution for hypersexuality and require the empirical validation of the cutoffs that are established for decision-making. In this talk we will use Item Response Theory analyses to explore the structure of hypersexuality, and we will examine the consequences of varying cutoffs. We will discuss the implications of these results for assessment and treatment.

References


Goals of the Paper:

1. Examine the importance of latent structure and its implications in a range of domains.
2. Present new evidence of the dimensional latent structure of hypersexuality.
3. Provide examples of the issues that result from the mismatch between latent structure and assessment and analysis techniques.

Communicating About Risk of Sex Offenders: What the Broader Violence Literature Tells us About the Importance of Distinguishing Hypothesis vs. Evidence

Marnie E. Rice, Ph.D., C.Psych., FRSC

Authorities in the field of violence risk assessment have proposed quite valid and reasonable hypotheses with respect to several issues. Among these are the following: that accuracy will be improved by the adjustment or moderation of numerical scores based on clinical opinions about rare risk factors or other considerations pertaining to the applicability to the case at hand; that there is something fundamentally distinct about protective factors so that they are not merely the obverse of risk factors, such that optimal accuracy cannot be achieved without consideration of such protective factors; and that assessment of dynamic factors is required for optimal accuracy and furthermore interventions aimed at such dynamic factors can be expected to cause reductions in violence risk. It is suggested here that, while these are generally reasonable hypotheses, they have sometimes been inappropriately presented to practitioners as empirically supported facts, and that practitioners’ assessment and communication about violence risk run beyond that supported by the available evidence as a result. It is further suggested that this represents harm, especially in impeding scientific progress. Nothing here justifies stasis or simply surrendering to authoritarian custody with somatic treatment. Theoretically motivated and clearly articulated assessment and intervention should be provided for offenders, but in a manner that moves the field more firmly from hypotheses to evidence.

Goals of the Paper:
In this presentation, I will review the literature on risk assessment relevant to:

1. Whether adjustments of numerical scores on risk assessment tools improve predictive accuracy;
2. Whether there is something fundamentally distinct about protective as opposed to risk factors;
3. Whether assessment of dynamic factors is required for optimal accuracy and whether interventions aimed at such dynamic factors can be expected to cause reductions in violence risk.