

Appraising Recidivism Risk of Sex Offenders: The SORAG and VRAG-R

Symposium Chair: Marnie E. Rice, Ph.D

The actuarial *Sex Offender Risk Appraisal Guide* (SORAG), developed in the 1990s, has been shown to predict recidivism (sexual, violent, and general) among male sex offenders in at least a dozen independent studies from North America and Europe. The average effect size across these studies for the prediction of violent (including hands-on sexual) recidivism has been large. SORAG scores have also been reported to predict the imminence and severity of violent recidivism among sex offenders. Considerable evidence indicates that the efficacy and efficiency of interventions aimed at minimizing the subsequent harm caused by released sex offenders is optimized when interventions (custody, community supervision, treatment, and so on) and their intensity are apportioned in accordance with scores on actuarial tools such as the SORAG. However, most studies of the SORAG have examined follow-up durations of less than ten years while application of formal sex offender risk assessment tools can be expected to be concerned with longer periods of opportunity. As well, the 14-item SORAG is comparatively costly to score because, for example, it includes items reflecting DSM diagnoses. This two-part symposium describes a program of research on 745 released sex offenders (child molesters and rapists).

Part 1 will address several empirical issues pertaining to the performance of the SORAG: a) Over fixed follow-up periods ranging from one year to more than 20 years; b) In the prediction of dichotomous violent recidivism and several continuous measures of the severity of sex offenders' recidivism; c) With respect to discrimination (usually indexed by ROC area statistics) and "calibration" (usually indexed by fit statistics); and d) For child molesters and rapists separately. Part I will also address the estimated performance of the SORAG in predicting, among released sex offenders, that subset of violent recidivism most likely to be sexually motivated; and the communication of individual SORAG scores in terms of raw scores, risk categories, experience tables, percentile ranks, and estimated likelihood ratios.

Part 2 of the symposium will describe the development of a new actuarial instrument, the *Violence Risk Appraisal Guide—Revised Version* (VRAG-R) for use with violent offenders, including sex offenders. The empirical development of the VRAG-R used a sample of 1261 violent offenders (including the 745 sex offenders). The development and testing of the VRAG-R eliminated several items that were relatively costly to score. Eight items of the original SORAG items were retained and, based on incremental validity, four new items were added. The resulting instrument is applicable to violent male offenders, whether sex offenders or not. We will report on its performance, among released sex offenders, in discriminating violent recidivists (ROC area = .74) and show experience tables for nine mutually exclusive categories. In addition, the performance of the VRAG-R will be described for sex offenders with respect to: performance over fixed follow-up periods ranging from one year to 40 years; performance in the prediction of several continuous measures of the severity of sex offenders' recidivism; performance for child molesters and rapists separately; estimated performance in

predicting, among released sex offenders, that subset of violent recidivism most likely to be sexually motivated.

The symposium will conclude with the presentation of empirical findings relevant to the application of the SORAG and VRAG-R to estimating the risk of released sex offenders: the incremental value of increases in age and whether there is evidence of a secular trend reflecting decreased risk of recidivism, as a function of actuarial scores (e.g., Do experience tables for the SORAG need to be revised to reflect the downward societal trend in violent crime?). Finally, we will address the recommended practical application of both tools.

The SORAG and the Long-term Prediction of Recidivism

Marnie E. Rice, Ph.D.
Grant T. Harris, Ph.D.

The actuarial *Sex Offender Risk Appraisal Guide* (SORAG), developed in the 1990s, has been shown to predict recidivism (sexual, violent, and general) among male sex offenders in at least a dozen independent studies from North America and Europe. The average effect size across these studies for the prediction of violent (including hands-on sexual) recidivism has been large. In addition, SORAG scores have been reported to predict the imminence and severity of violent recidivism among sex offenders. Considerable evidence indicates that the efficacy and efficiency of interventions aimed at minimizing the subsequent harm caused by released sex offenders is optimized when interventions (custody, community supervision, treatment, and so on) and their intensity are apportioned in accordance with scores on actuarial tools such as the SORAG. However, most studies of the SORAG have examined follow-up durations of less than ten years while application of formal sex offender risk assessment tools can be expected to be concerned with longer periods of opportunity. In this presentation, we will describe a study of 745 released sex offenders (child molesters and rapists) and the performance of the SORAG using many different criteria. We will examine the predictive accuracy of the SORAG over fixed follow-up periods ranging from one year to more than 20 years, its accuracy in the prediction of dichotomous violent recidivism and continuous measures of the speed and severity of sex offenders' recidivism, and the performance of the SORAG with respect to discrimination "calibration" or the extent to which the category-by-category scores from the published norms were replicated.

The presentation will also include separate results for the performance of the SORAG for child molesters and rapists, as well as the estimated performance of the SORAG in predicting, among released sex offenders, that subset of violent recidivism most likely to be sexually motivated. Finally, we will discuss the communication of individual SORAG scores in terms of raw scores, risk categories, experience tables, percentile ranks, and estimated likelihood ratios.

Development of the VRAG-R and Validation for Sex Offenders

Grant Harris, Ph.D.
Marnie Rice, Ph.D.

In this presentation, we will describe the development of a new actuarial instrument, the *Violence Risk Appraisal Guide—Revised Version* (VRAG-R) for use with violent offenders, including sex offenders. The empirical development of the VRAG-R used a sample of 1261 violent offenders (including the 745 sex offenders). The development and testing of the VRAG-R eliminated several items that were relatively costly to score. Eight items of the original SORAG items were retained and, based on incremental validity, four new items were added. The resulting 12-item instrument is applicable to violent male offenders, whether sex offenders or not. We will report on its performance, among released sex offenders, in discriminating violent recidivists (ROC area = .74) and show experience tables for nine mutually exclusive categories. In addition, we will describe the performance of the VRAG-R for sex offenders with respect to: performance over fixed follow-up periods ranging from one year to 40 years; performance in the prediction of several continuous measures of the severity of sex offenders' recidivism; performance for child molesters and rapists separately; and the estimated performance in predicting, among released sex offenders, that subset of violent recidivism most likely to be sexually motivated.

The presentation will conclude with the presentation of empirical findings relevant to the application of both the SORAG and VRAG-R to estimating the risk of released sex offenders. First, we will examine the incremental value of increases in age to determine whether offenders released at older ages are less likely to recidivate than indicated by their score on the SORAG or VRAG-R. We will also examine whether there is evidence of a secular trend reflecting decreased risk of recidivism, as a function of actuarial scores (e.g., Do experience tables for the SORAG need to be revised to reflect the downward societal trend in violent crime?). Finally, we will address the recommended practical application of the SORAG and VRAG-R.