A Model for a Clinically-Informed Risk Assessment Strategy for Sex Offenders
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Ralph Serin
Research Branch,
Correctional Service Canada

Howard Barbaree & Michael Seto
Clarke Institute of Psychiatry

Bruce Malcolm
Millhaven Assessment Unit,
Correctional Service Canada

Ed Peacock
Warkworth Sexual Behaviour Clinic,
Correctional Service Canada

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The assessment, treatment, and management of sex offenders has become a preoccupation of the criminal justice system. This has occurred despite relatively low rates of failure among released sex offenders relative to other violent offenders (Barbaree, Seto, & Maric, 1996; Hanson, Steffy, & Gauthier, 1993; Motiuk & Brown, 1996). This literature has also confirmed differential rates of failure for types of sex offenders. Further, number of prior victims and degree of harm in the sexual assault are also both related to risk for recidivism. Notwithstanding such findings that sex offender assessment is becoming more sophisticated, there continues to be an acute concern regarding the assessment, treatment, and release of sex offenders. First, public concern has heightened about community safety, partly due to media attention given to a relatively few number of sensational sex crimes, principally committed by sexual predators, a distinct group of sex offenders. Such attention promotes the mistaken view that all sex offenders are alike (such as at equal risk to commit such crimes). Second, legislators are attempting to ameliorate such concerns by developing new, stricter laws governing the sentencing and release of sex offenders (Bill C-55, Long Term Offender legislation). This is occurring in both Canada and the United States. Underlying some of these new laws is the presumption that a valid and accurate assessment strategy exists to determine who among convicted sex offenders merit severe restrictions of liberty. Third, the prevalence of sex offenders has increased markedly over the past decade to
the point where they represent 25% of all federally sentenced admissions (Motiuk & Belcourt, 1996). These combined issues necessitate a criminal justice response regarding both policy and resource allocation. The National Sex Offender Strategy (Correctional Service of Canada, 1996) represents the most recent endeavor to reflect contemporary practice in the assessment and treatment of sex offenders in the Correctional Service of Canada. Importantly, other jurisdictions are developing comparable guidelines (California Department of Mental Health, 1996; Colorado Sex Offender Treatment Board, 1996).

Given the prevalence of sex offenders, the community concern, and the resources invested in this special population, it is not surprising that views abound regarding the preferred management strategy. At the same time, competing perspectives regarding the utility of treatment, ideal sentence length\(^1\), and the use of prolonged incarceration in the form of detention, make consensus problematic (Quinsey, Rice, Harris, & Lalumiére, 1993; Marshall & Pithers, 1994). Pleasing one group by definition displeases another. In this way, management strategies are often viewed to be independent. We believe such an approach fails to appreciate: i) the marked heterogeneity among sex offenders regarding needs and risk, ii) that a differentiated strategy is preferred such that lower risk sex offenders are managed differently than high risk sex offenders, iii) multi-method assessment and re-assessment will be more effective than attempting to develop a single, one-time “ideal” approach for all sex offenders. Data from a standardized Offender Intake Assessment (OIA) implemented by the Correctional Service of Canada in November 1994 further

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\(^1\) Average sentence length is 4 years and 3 months (Motiuk & Belcourt, 1996)
confirms that sex offenders and non-sex offenders differ with respect to some important risk factors and treatment responsivity variables (Motiuk, 1995).

A review of some statistics regarding all sex offenders admitted to federal custody in 1995 highlight this heterogeneity issue. Most sex offenders admitted to federal custody were convicted of a sexual assault (50.2%), or a combination of different types of sex offenses (21.2%). A minority of sex offenders admitted to federal custody were incest offenders (8.4%); extrafamilial child molesters were twice as prevalent (14.9%). A very small proportion (5.3%) of these federal sex offenders had committed other sex offenses such as exhibitionism.

The purpose of this paper is to integrate conceptual models regarding assessment strategies, contemporary intervention, and empirically-derived predictors of sexual or violent recidivism in sex offenders. Several recent reviews are available regarding the assessment and treatment of sex offenders (Blanchette, 1996; Epps, 1996; Marshall, in press). Blanchette’s (1996) conclusion is representative: “Sexual aggression is a complexly-determined phenomenon, with varied antecedents and sequelae. Perpetrators of sexual crimes differ in their personal and criminal histories, the circumstances preceding their offenses, their victim age and gender preferences, the attitudes and beliefs that support their deviant behaviour, and the degree to which they have used force or brutality or caused physical harm to their victims. Thus, sexual offenders are a heterogeneous group of individuals, with diverse evaluative and treatment needs” (p.4). Multi-method assessment is also important (Blanchette, 1996; Epps, 1996), with suggestions for psychological testing, physiological assessment of sexual preference, file reviews, behavioral observations, and
clinical interviews. We believe the investigation of systematic, multi-method assessments completed on large numbers of sex offenders can provide clarity, such that a differential assessment of risk is possible.

In terms of treatment, the most highly regarded approach, a cognitive behavioral model employing relapse prevention in high risk situations, is described by Marques and her colleagues (Marques, Nelson, Day, & West, 1994). The predominant principles for intervention (cf Marshall, Laws, & Barbaree, 1990) are well articulated in standards of practice in CSC sex offender treatment programs (CSC, 1996; Williams, 1995). The majority of these CSC programs, however, are recent and lack a sufficient sample size and follow-up period for rigorous analysis. The specific strategy or manner in which treatment information, either positive or negative, is incorporated into risk assessments, however, requires further development (Kennedy & Serin, in press).

Other authors have developed actuarial risk instruments or scales (Harris, Rice, & Quinsey, 1994) as a requisite management strategy. While these results are encouraging, to date the populations used for the development of these scales are highly specific and not representative of the full range of federally sentenced sex offenders. Validation efforts at sites within CSC are ongoing (Furr, 1996; Loza & Dhaliwal, in press). Efforts at applying the risk/need principle to sex offender outcome studies also show merit (Nicholaichuk, 1996). A related theme is the application of meta-analytic techniques to determine effect sizes regarding treatment efficacy (Gendreau, Goggin, & Little, 1996) and recidivism prediction (Hall, 1995; Hanson & Bussière, 1996). Much of this information has been incorporated into heuristic models which are beginning to
emerge to meet the needs of clinicians and decision-makers (Boer, Wilson, Gauthier, & Hart, 1996), but their empirical validation will not be available for some time.

Our goal was to develop a model that represents literature from each of these important areas regarding the management of sex offenders. It is expected that the final model will be generic across types of sex offenders (rapists, child molesters, incest offenders), but will incorporate information specific for these subtypes. In this way, differentiated assessment strategies will potentially be possible. In order to test this model we needed two relatively large samples of sex offenders, preferably one being a treatment sample to evaluate some aspects of treatment efficacy. The assessment sample (n > 800) is from the Millhaven Assessment Unit (MAU) which assesses all sex offenders admitted to the Ontario Region. The treatment sample (n > 450) is from the Warkworth Sexual Behaviour Clinic (WSBC) which has provided cognitive behavioral treatment with a relapse prevention component over the past 8 years.

Our intent is to develop a conceptually-driven risk assessment strategy, test it using the MAU sample, and validate it using the WSBC sample. It is hoped such an approach, by being empirically-informed and aggregating data across sites for increased statistical power, will facilitate the development of a clinically useful strategy. In this way, the initiative is intended to reflect contemporary clinical reality in CSC, but organizes information in a manner that leads to differentiated risk assessment and management of sex offenders.

**Development of the Model**
Upon reviewing the relevant literature, it was decided to create a two tier model. The first tier reflects core constructs considered central to risk factors in sex offenders: deviant sexual interest and criminality (Knight, Prentky, & Cerce, 1994; Lalumière & Quinsey, 1996). The second tier describes moderating variables: substance abuse; social competence; and, treatment readiness. Within each of these domains it is possible to conceptualize both static and dynamic variables. Similarly, the moderating variables also represent responsivity factors that are expected to have an impact on treatment. Deficiencies in these areas will tend to attenuate positive treatment effects, independent of the assessment strategy employed, i.e., self-report, behavioral observation, interview-based. Also, we hypothesized that classifying offenders according to low or high criminality and low or high deviant sexual interest would be illustrative (cf. Barbaree & Serin, 1993). For instance, we believe that distinguishing offenders in this manner would identify explicit treatment targets that would differ by groups, and that such differentiation would inform treatment responsivity and outcome. Highly criminal and sexually deviant offenders clearly have different needs and risk profiles than low criminal and nonsexually deviant offenders. Criminality and sexual deviance are distinct treatment targets, but may interact in terms of responsivity and risk.

We reviewed the literature related to these domains and selected robust variables for inclusion in our analyses. The domains and the variables proposed for our assessment model are presented in Tables 1 and 2, respectively.
Table 1
Central Risk Factors in the Assessment of Sex Offenders

**Tier 1**
**Criminality (Attitudes and Behaviour)**
- Age at time of index offense
- Developmental history (juvenile delinquency; early onset behaviour problems; fighting)
- Employment instability (unrelated to skill)
- Non-sexual offense history
- Personality disorder (APD, psychopathy)
- Criminal attitudes and associations
- Pervasive anger (constantly angry; assaults; violent fantasies)
- Prior violent crimes

**Sexual Deviance**
- Prior sexual offense
- Stranger victim
- Female child victim *
- Early onset of sex offenses
- Child victim and related *
- Male child victim *
- Diverse sex crimes (more than 1 type)
- Phallometric preference (age, gender, violence)
- Designated as Dangerous Offender
- Paraphilias
- Sexual preoccupation (fantasy, drive)
- Sexual compulsivity
- Pornography
- Offense planning, grooming

Variables coded with an asterisk are specific to type of sex offender and will only be used for the child victim analyses.
Table 2

Moderating Risk Factors in the Assessment of Sex Offenders

Tier 2

Social Competence

Developmental history (poor with both parents)
Employment instability (performance problems not impulsivity)
Relationship difficulties
Social class (Blishen) and/or occupation
Education level (highest grade achieved)
Marital status
IQ estimate (Shipley)

Substance Abuse

Alcohol use during offense
Chronic alcohol use (MAST)
Drug use during offense
Chronic drug use (DAST)

Treatment Readiness

Poor treatment motivation
Denial
Minimization (victim blame)
Prior treatment failures

These variables were selected consensually among the authors, based on empirical support (correlated with sexual recidivism) or clinical utility (impact on treatment response). This list is not unique, as many are represented in various assessment strategies, either partially or fully. Also, the model closely reflects the Multifactorial Assessment of Sex Offender Risk for Reoffense (MASORR; Barbaree et al, 1996). We wondered if the conceptualization of risk according to 2 core dimensions (criminality and deviant sexual interest) might...
facilitate the identification of pathways along which sex offenders differ (Seto & Barbaree, in press). Further, moderating variables are expected to further differentiate offenders according to estimates of risk. The conceptual depiction of this risk assessment model is presented in Figure 1.

Figure 1

A Model for a Clinically Informed Risk Assessment Strategy for Sex Offenders

Tier 1
- Criminality
- Sexual Deviance

Tier 2
- Social Competence
- Substance Abuse
- Treatment Readiness

Treatment Needs/Risk

Upon compiling this list of variables, we needed to determine the extent to which explicit or proxy measures for each are available in each of the databases
Fortunately, the vast majority of the variables are reflected in the existing assessment approaches at MAU and WSBC, although some variables are measured differently in each. In developing scoring criteria for each of the variables in Tables 1 and 2, there were two notable areas where the proxy measures might be considered marginal. Existing measures in the MAU and WSBC databases for criminal attitudes and associations and sexual preoccupation and compulsivity are quite limited. This exercise in itself was therefore useful as it identified domains where more detailed assessment would better reflect the conceptual model. This is also consistent with the long term intent to use these analyses to inform both sites regarding a standardized assessment protocol.

Although this model provides a clinical assessment protocol consistent with standards of practice (CSC, 1996), the initial focus was to determine their relative contribution to the assessment of risk for different types of sex offenders.

Having determined which variables are significantly related to sex offender risk, we can then turn to the question of differential assessment. First, do different variables postdict different types of sex offenders? Second, do different domains (high/low criminality and deviant sexual interest) postdict different types of sex offenders? Third, do different domains (high/low criminality and deviant sexual interest) predict sex offender recidivism? Fourth, are moderating variables constant across types of sex offenders and domains?

**Data Analysis Strategy**

These questions then led to the development of a series of specific analyses of the data which we intend to complete over the coming months. First,
to determine the utility of a case differentiated assessment strategy, we will to
attempt to classify each type of sex offender (incest, extrafamilial child molester,
sexual assault against adult) using the variables described in Appendix 1. The
large sample size will permit dividing the MAU database into 2 groups of 400, a
construction and validation sample. These classification analyses will be
completed on the first MAU sample, the construction sample, then validated on
the second sample. The surviving variables from this second step will be applied
to the WSBC sample of 475 cases. This final set of variables will represent the
empirically-derived assessment protocol.

The next series of analyses are intended to determine whether
distinguishing among each type of sex offender according to level (median split)
of criminality and sexual deviance, yields unique groups according to the
influence of the moderating variables. Defining groups according to low or high
on criminality and sexual deviance yields 4 groups - low criminality and low
sexual deviance, low criminality and high sexual deviance, high criminality and
low sexual deviance, high criminality and high sexual deviance. Comparisons
using analyses of variance for each moderator variable (social competence,
substance abuse, and treatment responsivity) for each type of sex offender
(incest, child molester, rapist) will indicate the utility of such a risk assessment
strategy.

Lastly, the findings from the first classification analyses (postdiction)
provide empirical support for the differential application of these selected
variables to the outcome data to determine their incremental predictive validity.
Initially these analyses will investigate the relationship to treatment participation
variables and changed scores in clinically assessed risk, pre and post-treatment. Next, the relationship with recidivism data will be investigated, including any failure, violent failure, and sexual recidivism. The base rates for the latter two dependent measures, however, are quite low, limiting this approach despite the large sample of treated and released offenders (Barbaree, in press).

Summary

This initiative is important in that it attempts to provide empirical support for the clinical assessment protocols presently recommended in standards for sex offender assessment. Further, by aggregating across samples, we can determine the extent to which a case differentiated assessment for sex offenders is viable. Finally, by employing samples of treated and untreated offenders, we are able to determine the extent to which this case differentiated assessment strategy informs both the identification of treatment needs and treatment outcome. More detailed reports will be completed and distributed as Research Reports as the data are analyzed.
References


California Department of Mental Health (1996). *WIC 6600 Civil Commitment Program.* California.


Correctional Service of Canada (1996). *Standards and guidelines for the provision of services to sex offenders.* Ottawa, Canada.


Appendix 1

Coding of Variables

Criminology

C1. Age at index offense. _____

C2. Developmental history: Composite score ______
    1) Trouble as a juvenile (age 13-17) No/Yes (0/1)
    2) Trouble with police as a child No/Yes
    3) Juvenile conviction No/Yes
    4) Conduct disorder No/Yes
    5) Early onset of problem behavior (< age 13) No/Yes
    6) History of fighting as a child (< age 13) No/Yes

C3. Employment instability (unrelated to skill): 
    Number of times quit a job without another one to go to. _____

C4. Nonsexual offense history: 
    1) Number of nonsexual convictions ______
    2) Criminal versatility (PCL-R item 20) ) versus 1 or 2 ______

C5. Personality disorder (APD, psychopathy) PCL-R score ______

C6. Criminal attitudes and associations (no acceptable measure)

C7. Pervasive anger (constantly angry; assaults; violent fantasies)
    1) PCL-R item 10 ______
    2) Instrumentality (1-4 = 0; 5 & 6 = 1) ______
       (1=no force or coercion; 2=coercion, no force; 3=coercion, minimal force; 4=just sufficient force; 5=excessive force; 6=brutal, extreme force)

C8. Number of prior nonsexual violent crimes ______
Sexual Deviance

SD1. Number of prior sexual offenses _____

SD2. Stranger victim No/Yes

SD3. Number of female child victims * _____

SD4. Early onset of sex offenses (age first involved in sex offenses < age 19) No/Yes

SD5. Relationship to child victim * (biological = 1; step = 2; other = 3) _____

SD6. Number of male child victims * _____

SD7. Diverse sex crimes (more than 1 type) (child and adult victims) No/Yes

SD8. Phallometric preference (deviance index score) _____

SD9. Designated as Dangerous Offender No/Yes

SD10. Paraphilias No/Yes

SD11. Sexual preoccupation (fantasy, drive); Sexual compulsivity Pornography; Proxy measure (PCL-R item 11) _____

SD12. Offense planning, grooming (No planning = 1; planned offense, not victim = 2; planned offense and selected victim = 3) _____
Social Competence

SC1. Marital status at index offense
   (never married = 1; separate or divorced = 2; widowed = 3; married = 4)

SC2. Developmental history (poor with both parents)
   (poor - abuse or neglect = 1; average - for SES = 2; good = 3)

SC3. Employment instability (performance problems not impulsivity)
   Number of times fired

SC4. Relationship difficulties
   Length of longest relationship
   Number of partners

SC5. Social class (Blishen score) and/or occupation

SC6. Education level
   (highest grade achieved 1-13, plus a score of 1 for each year postsecondary)

SC7. IQ estimate
   (well below average = 1; average = 2; well above average = 3)
**Substance Abuse**

<table>
<thead>
<tr>
<th>Question</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>SA1. Alcohol use during offense</td>
<td>No/Yes</td>
</tr>
<tr>
<td>SA2. Chronic alcohol use (MAST)</td>
<td>No/Yes</td>
</tr>
<tr>
<td>SA3. Drug use during offense</td>
<td>No/Yes</td>
</tr>
<tr>
<td>SA4. Chronic drug use (DAST)</td>
<td>No/Yes</td>
</tr>
<tr>
<td>SA5. Age first used alcohol</td>
<td>______</td>
</tr>
<tr>
<td>SA6. Age first used drugs</td>
<td>______</td>
</tr>
<tr>
<td>SA7. Alcohol used as a teen</td>
<td>No/Yes</td>
</tr>
<tr>
<td>SA8. Alcohol used as an adult</td>
<td>No/Yes</td>
</tr>
<tr>
<td>SA9. Drugs used as a teen</td>
<td>No/Yes</td>
</tr>
<tr>
<td>SA10. Drugs used as an adult</td>
<td>No/Yes</td>
</tr>
</tbody>
</table>
**Treatment Readiness**

TR1. Poor treatment motivation  
   MSI treatment attitudes, pre-treatment ratings.  
   No/Yes

TR2. Denial of offense  
   No/Yes

TR3. Minimization  
   (none = 1; partial = 2; full = 3)  
   Minimization of responsibility - victim blame, external attributions,  
   irresponsible internal attributions; Minimization of extent - frequency,  
   priors, force used, intrusiveness; Minimization of harm. Partial = 2 of 8;  
   full = 3 or more.

TR4. Prior treatment failures  
   Prior treatment  
   No/Yes  
   Had sex offender treatment previously  
   No/Yes  
   Had other treatment previously  
   No/Yes