Dynamic Predictors Of

Sexual Recidivism

1998-1

by

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Executive Summary

Given the importance of effective community supervision of sexual offenders, there is surprisingly little research indicating when sexual offenders are likely to re-offend. In the present study, information on dynamic (changeable) risk factors was collected through interviews with community supervision officers and file reviews of 208 sexual offense recidivists and 201 non-recidivists. The sexual offenders were selected from all regions of the Correctional Service of Canada and from all provinces (except P.E.I.). The recidivists had committed a new sexual offense while on some form of community supervision (probation, parole, mandatory supervision). The non-recidivists were matched to the recidivists on victim type, criminal history, geographical region and jurisdiction. The study examined approximately equal numbers of rapists, boy-victim child molesters and girl-victim child molesters.

Despite efforts to match the recidivistic and non-recidivistic groups, some differences remained in static, historical variables. In comparison to the non-recidivists, the recidivists had a greater history of sexual deviance, such as diverse types of victims, stranger victims, juvenile offenses and paraphilias (e.g., exhibitionism, cross-dressing). As well, the recidivists showed more signs of an antisocial lifestyle than did the non-recidivists. The recidivists were more likely to meet criteria for antisocial personality, psychopathy (PCL-R), and had higher scores on objective risk scales (SIR and VRAG).

Officer interviews indicated that the recidivists displayed more problems while on supervision than did the non-recidivists. In particular, the recidivists

were generally considered to have poor social supports, attitudes tolerant of sexual assault, antisocial behaviour, poor self-management strategies and difficulties cooperating with supervision. The overall mood of the recidivists and non-recidivists was similar, but the recidivists showed increased anger and subjective distress just prior to re-offending.

More of the recidivists than the non-recidivists were using sex drive reducing medications (anti-androgens). A possible explanation is that officers insisted on medication only for the most severe cases. The study was not intended to test the efficacy of hormonal treatments; nevertheless, officers should be aware that sexual offenders still present considerable risk for sexual offense recidivism after the introduction of sex drive reducing medication.

The offenders' attitudes and behaviour during supervision continued to be strongly associated with recidivism even after controlling for pre-existing differences in static risk factors (overall $R = .60$, $p < .001$). The dynamic factors identified in the interview data were reflected (to a lesser extent) in the officers' contemporaneous case notes, which suggests that the interview findings cannot be completely attributed to retrospective recall bias.

Carefully monitoring the risk indicators identified in this study should help officers to provide graduated and responsive interventions well before the point of no return.

Dynamic Predictors of Sexual Recidivism

Risk assessment for sexual offenders is, and will remain, an important issue for the criminal justice system. Given the pervasive "get tough on crime" attitude, public concern is often framed as a need to keep sexual offenders in prison for long periods. Economic, ethical, humanitarian and practical concerns, however, rule out the possibility of indefinite detention for all sexual offenders. The purpose of this study was to collect information to improve community supervision practices and help identify those offenders who can (or cannot) be safely managed in the community.

Recidivism risk prediction

There has been considerable research identifying the factors that predict general criminal recidivism (Bonta, Law & Hanson, 1998; Gendreau, Little & Goggin, 1996). Risk predictors can be broadly divided into two general types: static (unchangeable) and dynamic (changeable) risk factors (Bonta, 1996). The dynamic factors can be further divided into stable dynamic and acute dynamic factors. Different types of risk assessments require the consideration of different types of risk factors. Static, fixed predictors, such as gender or criminal record, can be useful for evaluating long-term risk potential (e.g., dangerous offender applications). Stable dynamic factors, such as personality disorders or deviant sexual preferences, may also be used for long-term risk assessments, but they are crucial for assessing enduring changes (e.g., treatment outcome, parole release). In contrast, acute, rapidly changing factors, such as negative mood or alcohol intoxication, can signal the timing of reoffense, and are particularly useful for monitoring risk during community supervision.

Gendreau et al.'s (1996) recent meta-analytic review found that dynamic factors predicted general recidivism as well or better than static risk factors. Criminal companions and "criminogenic needs" (e.g., antisocial attitudes, current employment/education problems) were among the strongest recidivism predictors (average correlations in the .18 to .21 range). The importance of dynamic factors for general criminal recidivism has been supported by other meta-analytic reviews (e.g., Law & Motiuk, 1998) and by studies specifically designed to examine rapidly changing risk factors (Zamble & Quinsey, 1997).

Predictors of sexual offense recidivism

Although the importance of dynamic factors for predicting general criminal recidivism is firmly established, it is not clear that same factors necessarily predict sexual recidivism. Sexual offending appears to be a distinct type of crime with its own set of risk factors (Hanson, Scott & Steffy, 1995; Hanson & Bussière, 1998). Because the dynamic predictors of general (primarily non-sexual) recidivism have been addressed elsewhere (Andrews & Bonta, 1994, 1995; Bonta, 1996; Gendreau et al., 1996; Quinsey, Coleman, Jones, & Altrows, 1997;

Zamble & Quinsey, 1997), the present study focused only on the predictors of sexual offense recidivism.

A recent meta-analytic review of follow-up studies identified numerous individual factors that were reliably related to sexual offense recidivism (Hanson & Bussière, 1996, 1998). Almost all of these identified factors were static (e.g., offense history, victim type, age) and the remainder were highly stable (e.g., antisocial personality disorder, deviant sexual preferences). No acute dynamic factors were identified.

The follow-up studies examined by Hanson and Bussière (1996, 1998) were not designed to identify acute, rapidly changing risk factors (e.g., mood, drunkenness). The lack of research evidence connecting acute factors to recidivism does not mean that these factors are unimportant; instead, it may simply indicate the need for a different type of research design. Consequently, the present study aimed to improve our understanding of dynamic risk factors for sexual offenders by using research procedures specifically designed to target dynamic acute risk factors.

The recidivism risk factors targeted in this study were based on social cognitive theory (e.g., Bandura, 1977; Fiske & Taylor, 1991) as applied to general criminal behaviour (e.g., Andrews & Bonta, 1994) and sexual offending (Hanson, 1996; Johnson & Ward, 1996; Laws, 1989). In this model, recidivistic sexual offenders would be expected to hold deviant schema, or habitual patterns of thought and action, that facilitate their offenses. The likelihood that an offender would invoke or enact such schema would increase if the schema were well rehearsed, were triggered by common circumstances, were considered socially acceptable in his environment, and were consistent with the offender's personality and values. Although each offender's crime cycle would be somewhat unique, certain characteristics would be expected to provide fertile ground for the development, rehearsal and enactment of deviant sexual schema or "scripts". In particular, those offenders who lacked realistic self-management strategies (e.g., exposing themselves to high risk situations, disengaging from treatment, failing to cooperate with supervision) would be expected to have the most difficulty inhibiting deviant schema.

Previous research has also suggested a number of potentially important dynamic risk factors for sexual offenders. Based on file review, Pithers and his colleagues reported that negative emotional states were common precursors to reoffending for both rapists and child molesters (Pithers, Beal, Armstrong, & Petty, 1989; Pithers, Kashima, Cummings, Beal, & Buell, 1988). Other common risk factors suggested by their review included cognitive distortions, low victim empathy, and social skills deficits. Their results are difficult to interpret, however, because there were no comparison groups of non-recidivistic offenders. As well, because only one time period was considered (the six months prior to reoffending), it is possible that many of the "immediate precursors" may actually

be symptoms of enduring problems (e.g., social skills deficits, disordered sexual arousal pattern).

Further evidence that negative mood may be an acute risk factor comes from the research of Proulx, McKibben and Lusignan (1996; McKibben, Proulx & Lusignan, 1994). In their studies, in-patient sexual offenders kept ongoing records of their emotional reactions, deviant sexual fantasies, and masturbatory behaviour. These studies found that deviant sexual fantasies tended to follow episodes in which the offenders felt stressed or upset. Although these studies demonstrated a link between negative mood, deviant sexual fantasies and masturbation, the design of these studies could not directly examine the link between negative mood and sexual offending per se.

Research based on offenders' reports can provide some insight into the recidivism process, but this procedure has significant limitations. For dynamic risk factors to be useful to community supervision officers, the factors must be observable. Consequently, the risk factors targeted in our study were informed not only by theory and previous research, but also by extensive consultation (interviews, focus groups and pilot testing) with more than 60 community supervision officers across Canada.

<u>Overview of Study</u>

The specific design of our study followed the procedure successfully employed by Quinsey et al. (1997) in their research on dynamic risk factors for mentally disordered offenders. This procedure involves retrospective comparisons of offenders who recidivated while on community supervision with offenders who had not recidivated. Our study involved approximately 400 sexual offenders, evenly divided among rapists, boy-victim child molesters, and girl-victim child molesters.

For the recidivists, information was collected at two time periods: six months (T1) and one month (T2) prior to recidivating. Information was collected at equivalent time periods for the non-recidivists. Such a design can provide information on the stable dynamic factors that distinguish recidivists from non-recidivists, as well as information on the acute factors that immediately precede reoffending.

For both time periods, information was collected through interviews with the supervising officers (both federal and provincial) and by examination of the officers' supervision case notes (the offenders were not interviewed). Interviews can provide detailed information, but could be influenced by recall bias. Behaviour may take on new significance after the officer knows the offender has recidivated. Case notes written before the recidivism event are not vulnerable to recall bias. Consequently, information from both interviews and note coding were considered, although each was analyzed separately.

The recidivists and non-recidivists were expected to differ on several dimensions. In particular, the recidivists were expected to have attitudes tolerant of sexual assault, unstable lifestyles, poor self-management skills, and negative social influences. Based on previous research (Pithers et al., 1988; Proulx et al., 1996), offenders were expected to display increasingly negative mood just prior to recidivating. The extent to which recidivists would have overall lower mood than the non-recidivists was unclear. Although self-esteem has been considered an important treatment target (Marshall, 1996), negative mood/self-esteem has not been related to recidivism over the long-term (Hanson & Bussière, 1996). It is possible, however, that mood is an acute, but not a stable dynamic risk factor.

Method

Subject Selection

Offenders were selected from all provincial correctional systems (except Prince Edward Island) and all regions of the Correctional Service of Canada. Given the different community supervision agreements across provinces, the offenders were supervised by provincial probation officers, provincial parole officers, or federal parole officers (case management officers). Once a recidivist was located, a non-recidivist was selected from the same geographic region and jurisdiction. The number of offenders per province was approximately proportional to each province's population.

All offenders had been convicted of a sexual offense involving physical contact with the victim (pure voyeurs and exhibitionists were excluded) and had served part of their sentence in the community (probation, parole, mandatory supervision and/or statutory release). Offenders who targeted only their biological or step children were excluded, except when the offender entered an existing family in order to access victims. Offenders who targeted members of their extended family (e.g., nieces, grandchildren) were included.

The recidivists had committed a new sexual offense (including non-contact offenses, e.g., exhibitionism) while on community supervision during the last five years (1992-1997). A new conviction was not required, but a new sexual offense must have been documented with reasonable evidence. The following were considered sufficient evidence of a new sexual offense: a) convictions for a new sexual offense; b) charges for a new sexual offense; c) non-sexual criminal charges (e.g., B & E, assault) where there were reasonable grounds to believe that the offender intended to commit a new sexual offense; d) breaches while on supervision for sexual reasons; and e) self-disclosures by the offender that they were re-offending while on community supervision.

The non-recidivists were selected from sexual offenders who had successfully completed at least six months of community supervision. On average, the non-recidivists had completed 24 months in the community,

whereas most of our recidivistic offenders had re-offended within 15 months. They were explicitly matched to the non-recidivists on victim type (boy, girl, adult) and province/geographic region (Pacific, Prairies, Ontario, Quebec, Atlantic). As well, we attempted to match the recidivists and non-recidivists on other relevant characteristics. If, for example, a recidivist had schizophrenia, we looked for a non-recidivist with schizophrenia. Similarly, if there were several non-recidivists to choose from, we selected non-recidivist cases that were higher rather than lower risk. The matching minimized pre-existing (static) differences between the recidivists and non-recidivists.

File Review Variables

A standardized coding manual was used to record background information for each case (i.e., static factors). This information was based on complete file reviews and national criminal history records obtained from the RCMP (FPS records). The background information included basic identifying information, detailed sexual offense histories, and a number of variables used to estimate pre-existing, or enduring risk for recidivism. Many of the coded items formed part of established objective risk assessment instruments.

The amount of information varied widely, so that not all variables were available for all offenders. In general, the most complete information was available for those who had served federal sentences.

Objective Risk Scales

Statistical Information on Recidivism (SIR). (Bonta, Harman, Hann & Cormier, 1996; Nuffield, 1982). The SIR scale is an objective risk measure developed for use by the Correctional Service of Canada and the National Parole Board. It includes items related to age, marital status, and 11 items related to criminal history (e.g., history of assault, break & enter, prior imprisonment). The SIR has been a consistent predictor of recidivism among general criminal populations (Cormier, 1997). Although there has been little research using the SIR with sexual offenders, the available research suggests that it is a good predictor of general recidivism among sexual offenders (r = .41), but a poor predictor of sexual offense recidivism (r = .09) (Bonta & Hanson, 1995). SIR scale scores were available for 84 recidivists and 90 non-recidivists. (SIR scores were not routinely available for provincial offenders).

Psychopathy Checklist - Revised (PCL-R; Hare, 1991). The PCL-R was constructed to provide a reliable and valid measure of the psychopathic personality described by Cleckley (1976). Hare's 20 - item measure has two correlated factors: the first factor taps core personality traits of impulsivity, irresponsibility, and callousness; and the second factor addresses anti-social behaviour. Each of the 20 items (e.g., lack of remorse, parasitic lifestyle) is rated either "2 - definitely applicable", "1 - potentially applicable" or "0 - absent". The diagnostic cut-off is 30 out of a potential top score of 40.

The current study assessed PCL-R scores through file review. Wong (1984) found that psychopathy ratings based on file review were virtually identical to ratings that included both file review and interview (the file reviews were slightly conservative). The PCL-R has been a reliable predictor of general (Wong, 1984) and violent recidivism (Serin, 1996). Although previous research has not found large direct relationships between psychopathy and sexual offense recidivism, these studies found high rates of sexual offense recidivism among those offenders who rated highly on both psychopathy and sexual deviance (Gretton, McBride, & Hare, 1995; Rice & Harris, 1997). Among sexual offender samples, psychopathy is more common among rapists than child molesters (Brown & Forth, 1997; Forth & Kroner, 1996).

Because relatively complete file information is required to code the PCL-R, scores were only available for 190 recidivist and 162 non-recidivists.

Violence Risk Appraisal Guide (VRAG). (Webster, Harris, Rice, Cormier & Quinsey, 1994). Originally developed to predict sexual or nonsexual violent recidivism among offenders referred to a maximum security psychiatric institution (Harris, Rice & Quinsey, 1993), the VRAG has attracted considerable interest as an actuarial predictor of violence (Borum, 1996). Its 12 items include the PCL-R, other personality disorders, early school maladjustment, age, marital status, criminal history, schizophrenia and victim injury. An application of the VRAG to a replication sample of 159 sexual offenders (Rice & Harris, 1997) found that it correlated .47 with violent recidivism (sexual and nonsexual violence), but only .20 with sexual offense recidivism. Due to incomplete files, VRAG scores were available for 146 recidivist and 121 non-recidivists.

Rapid Risk Assessment for Sexual Offense Recidivism (RRASOR). (Hanson, 1997). The RRASOR is a brief actuarial risk scale designed to predict sexual offense recidivism. The RRASOR contains four items: a) officially recorded sexual offenses; b) any unrelated victims; c) any male victims; and d) age less than 25. Averaged across eight different follow-up studies (total sample of 2,592), the RRASOR has demonstrated moderate accuracy in predicting sexual offense recidivism (r = .27, ROC area = .71).

<u>Other risk factors from file review</u>

In addition to the established risk scales, we coded a number of individual variables that research has suggested should be related to recidivism risk (Hanson & Bussière, 1996). These variables included the following:

<u>Sexual offense history</u>. Detailed information was collected on all known sexual offenses (index, recidivism, and priors). This information included victim age, sex, and relationship to offender, the specific sex acts committed (e.g., fellatio, touching over clothes), weapons use, brutality and victim injury. We also coded the lifetime total number of victims and the age of first known sexual offense (whether adjudicated or not).

<u>Sexual deviance</u>. Sexual deviance was assessed by considering the diversity of sexual acts committed, as well as by direct reports of deviant sexual interests or activities. Reports of phallometric assessment (Launey, 1994) were available for 30% of the sample. We also coded whether offenders appeared to have arranged their lifestyle to facilitate, or be congruent with, their sexual deviance (e.g., moves in with single mothers, works in an "adult" bookstore).

<u>Treatment history</u>. We recorded the number of treatment programs attended prior to the index offense, including sexual offense specific treatments, alcohol programs (e.g., Alcoholics Anonymous), and general counseling. Indices of treatment failure, compliance and motivation were combined into a 13-item scale (alpha = .85). The complete Sex Offense Treatment History scale is presented in Appendix I.

<u>Antisocial personality disorder</u>. (American Psychiatric Association, 1994). A diagnosis of Anti-social Personality Disorder (APD) was made by scoring all items from the DSM-IV manual for APD by file review. The four necessary diagnostic criteria are as follows: a) three or more specific behaviours indicating persistent disregard for and violation of the rights of others (e.g., deceitfulness, irresponsibility), b) age 18 or older, c) conduct disorder (see below) prior to age 15, and d) that the recorded anti-social behaviours did not occur exclusively during the course of a schizophrenic or manic-depressive episode.

Conduct Disorder (DSM-IV) was also coded from file review. Conduct disorder denotes a pattern of repetitive and persistent social rule-breaking prior to age 18. There are four primary behavioural areas covered in this diagnosis: aggression to people and animals, destruction of property, deceitfulness or theft, and serious violations of rules in such a manner that there is significant impairment in social, academic or occupational functioning. A diagnosis of conduct disorder (DSM-IV) may be given to a person over the age of 18 who does not meet the criteria for APD.

Miscellaneous variables. Official reports of physical, sexual or emotional abuse were recorded along with whether they had ever been taken into the care of child protection services. We also noted indices of psychiatric diagnoses, personality disorder, and intellectual ability. No attempt was made to arrive at independent diagnoses, except for the diagnoses of psychopathy and antisocial personality disorder noted above.

Interview Variables

Social influences

During the interview, community supervision officers were asked to list all the important people in the offender's life who were not paid to be with him (welfare case workers, ministers, psychotherapists were excluded). The officers then rated whether each individual was a positive, negative, or neutral influence on the offender. Officers were asked whether offenders were released into relatively controlled, moderately controlled, or uncontrolled environments in terms of access to victims, drugs and alcohol.

Problems evident during supervision

Officers were asked to report on any problematic behaviour or warning signs that they noticed during the course of supervision. For the recidivists, questions focused on the six month period just prior to the known recidivism event. For the non-recidivists, officers described the six months prior to the interview (all the non-recidivists were currently on community supervision). The specific factors examined are presented in Appendix II.

Case Note Coding

The officers' supervision notes were coded for the same problems examined in the interview. All reports, case notes and summaries that applied to the T1 and T2 time periods were used, provided that the materials were written prior to knowing that the offender had recidivated. Each separate mention of a problem area was counted separately; however, because there were few problems indicated in the case records, only dichotomous scores were analyzed (any problem mentioned/no problem mentioned).

Procedure

The data were collected by four field researchers working under the supervision of the project manager (Andrew Harris). In order to enhance reliability, the field researchers received a week of group training before data collection began. The project manager also accompanied each researcher during their first week in the field, and re-visited each of them for 1-2 weeks during the course of data collection. Periodic teleconferences were also held to resolve ongoing problems and to reduce rater drift.

The project received ethics approval from the relevant provincial/regional review boards (14 in total) and from the correctional managers involved.

Interview

Before being interviewed, each community supervision officer signed an informed consent indicating that their participation was voluntary, the information was for research purposes only, and that no personal or identifying information would appear in reports of the project. The interviews, lasting approximately one hour, were conducted in the officer's normal place of work during working hours. Of the officers with cases appropriate for this study, less than one percent declined participation.

The officer interview began with general questions about the officers' experience with sexual offenders and an overview of the case to be discussed. Next, officers were asked to make overall judgements of the offenders lifestyle based on their complete knowledge of the case. The officers were then asked about observed changes during the course of supervision. In order to aid recall, officers were first presented with a time graph representing the course of supervision. The interviewers then marked off two time periods: "T2" - the month prior to the end of the supervision period, and "T1" - the month that fell six months prior to the end of supervision. The length of these "month long" time periods was allowed to vary somewhat (4 to 6 weeks) due to holidays and the timing of reports and office visits. As a further aid to recall, officers were asked about specific events or changes (e.g., office moves, Christmas holidays) present during each of the time periods. Officers indicated whether each problem area had ever been a concern during the whole course of supervision, and, if so, whether the problem was worse at T1 or T2. For each time period (ever, T1, T2) officers rated each risk factors as '0 - no, never a problem', '1 - very slight or possible problem or concern', or '2 - yes, some problem'.

File coding

The field researchers coded the file material before or after the interview depending on the availability of the officer. The file coding was based on all available information and typically took 3-5 hours. In many cases, records needed to be retrieved from archives, distant institutions or alternate jurisdictions. The researcher who coded the files also conducted the corresponding interviews.

Reliability

Approximately 10% of the cases (43) were coded separately by two raters in order to estimate reliability. Overall agreement was calculated separately for each of 50 general content area (e.g., demographics, characteristics of index offense) (18 content areas for file coding; 19 for interview ratings; 13 for case note codes). Each content area typically contained between 5 and 15 items that were either categorical (any boy victims) or interval (total number of victims). The percent agreement was used as a convenient measure of rater agreement. In order to protect against artificial inflation due to low frequencies, cases in which both raters indicated missing data were not included.

There were high levels of agreement for all content areas. The average percent agreement was 95% for the static file coding, 97% for interview ratings, 94% for supervision case notes. The inter-rater reliability was consistently high for all coders in the study.

Data Reduction

Because information was collected on a large number of individual variables (the complete list is available upon request), the variables were organized into internally consistent scales. Scale construction began by identifying conceptually similar items. Next, the internal consistency of these items was calculated using Cronbach's alpha (Ghiselli, Campbell, & Zedeck, 1981). Items with low item-total correlations were eliminated, or analyzed separately. If a proposed scale contained eight or more items and the internal consistency of the scale was low to moderate, exploratory factor analyses were conducted to identify possible subscales. Following Cattell (1966), the scree test was used to determine the number of factors to extract. The resulting factors were rotated orthogonally (Varimax in SPSS) and the internal consistencies of the resulting scales were re-evaluated using Cronbach's alpha. Overall, the goal of the data reduction was to minimize redundancy while maintaining sufficient detail to identify useful distinctions between recidivists and non-recidivists. The scale construction/data reduction stage organised the 136 individual items from the officer interview/note codes into 30 scales (see Appendix II).

Results

Information was collected on a total of 208 recidivists and 201 non-recidivists. Following the predetermined sampling frame, the study examined approximately equal numbers of rapists, boy-victim child molesters and girl-victim child molesters (See Table 1). When offenders had diverse victims, they were classified according to their predominant victim type. The cells were not precisely equal as some of the offenders needed to be reclassified when additional information became available.

Table 1
Comparison of the recidivists and non-recidivists on static, historical variables.

Measure	Recidivists	Non-recidivists	Sig
Sample size	208	201	
Median release date (range)	1994 (84-97)	1996 (81-97)	
Months in community (time at risk)	15.4 (17.1)	24.0 (24.8)	<.001
Demographic factors			
Age at index	34.2 (11.0)	34.9 (11.6)	ns
Age at exposure to risk	36.3 (11.2)	39.1 (11.6)	.05
Ever married (%)	59.2	62.8	ns
Minority race (%)	14	11.5	ns
Unemployed at index (%)	55.6	50.3	ns
Location (n)			
Western/prairies	70	69	
Ontario	51	48	
Quebec	50	57	
Eastern	36	27	
Sexual offense history			
Predominant victim type (n)			
adult women (rapists)	71	66	
boys	61	61	
girls	76	74	
Total known victims			
mean (SD)	9.4 (20.1)	7.8 (27.2)	ns
median	5	3	
Ever offended against (%)			
adult females	55.1	46.2	ns
adult males	6.4	4.5	ns
boys	40.9	37.5	ns
girls	60.4	50.7	ns
Diverse victim types (%)	53.8	33.3	<.001

Measure	Recidivists	Non-recidivists	Sig
Relationship to victim (%)			
only related	0.4	8	<.001
any acquaintances	80.8	73	ns
any strangers	50.2	35	.002
<u>Sexual deviance</u>			
Any juvenile sex offenses (%)	37.7	21.7	<.001
Any diagnosis of deviant sexual preferences (%)	51	43	ns
Phallometric assessments (%)			
Conducted (deviant or not)	30.8	29.9	ns
Deviant age preference (children)	23.6	20.9	ns
Deviant activity preference (e.g., violence)	14.4	14.9	ns
Number of paraphilias (voyeurism, exhibitionism, fetishes, etc.)	1.5 (1.5)	1.0 (1.1)	<.001
Lifestyle congruent with sexual deviance (%)	60.6	50.2	.037
<u>Sex offender Treatment history</u>			
Ever attended (%)	76.3	77.1	ns
Number of different programs	2.1 (1.8)	1.9 (1.4)	ns
Poor treatment candidate (low motivation, drop-out)	2.6 (6.4)	-1.2 (6.8)	<.001
<u>Family Background (%)</u>			
Physical abuse	46.8	40.5	ns
Sexual abuse	61.3	44.2	.001
Other abuse (emotional/neglect)	54.8	36.8	<.001
Apprehended by child protective services	26.9	14.9	.003
Any long-term separation from parents prior to age 16	42.8	28.9	.003

Measure	Recidivists		Non-recidivists		Sig
Negative relationship with mother					
during childhood	33.7		20.9		0.004
as an adult	23.1		20.4		ns
Overall negative childhood environment (6 item scale)	2.6	(1.9)	1.8	(1.7)	<.001
<u>Criminal record</u>					
prior offenses (SD)					
sexual	2.4	(3.8)	2.2	(4.1)	ns
non-sexual violent	1.5	(2.4)	1.7	(3.8)	ns
non-violent	7.7	(10.3)	6.4	(15.1)	ns
total	11.6	(12.8)	10.3	(17.6)	ns
index/current offenses (SD)					
sexual	3.1	(3.8)	3.2	(3.3)	ns
non-sexual violent	0.56	(1.6)	0.77	(2.4)	ns
non-violent	0.48	(1.3)	0.33	(0.83)	ns
total	4.2	(4.6)	4.3	(4.4)	ns
<u>Clinical assessment</u>					
IQ	94.4	(14.6)	100.1	(14.5)	0.001
PCL-R Psychopathy					
mean (SD)	23.4	(6.8)	16.7	(8.7)	<.001
% > 29	20.5		8		
Antisocial personality (%)	64.4		49.3		0.002
Any personality disorder mentioned in file (%)	40.9		35.8		ns
Any psychotic disorder (%)	5.3		5		ns
<u>Objective risk scales</u>					
SIR	1.6	(9.0)	7.2	(8.8)	<.001
sample size	84		90		
VRAG	10.9	(8.6)	4.3	(9.0)	<.001
sample size	146		121		
RRASOR	2.6	(1.3)	2.3	(1.3)	ns

<u>Note</u>. Standard deviations in parentheses

Comparisons on Static Risk Factors

The first stage of the analysis examined static, historical variables that influence the offenders' pre-existing recidivism risk. As can be seen in Table 1, the recidivists and the non-recidivists were well matched on many variables. The groups did not differ on marital status, race, employment status or age at index offense. The recidivists, however, were somewhat younger (36.3 years) than the non-recidivists (39.1 years) when they began community supervision. As specified by the research design, the groups were closely matched on geographic location and primary victim type (boys, girls, adult females). As well, there were no significant differences in the number of officially recorded offenses (sexual or otherwise).

Even though the groups were matched on the total number of known victims, the recidivistic group appeared more sexually deviant on several indices. In comparison to the non-recidivists, the recidivists had more diverse victims (age/sex), fewer related victims, more stranger victims, more juvenile sexual offenses, and more paraphilias. The recidivists (61%) were judged more likely than the non-recidivists (50%) to have a lifestyle congruent with sexual deviance.

Both groups were equally likely to have attended specialized sexual offender treatment programs (76%), but the recidivists were most likely to have dropped-out or otherwise be considered treatment failures (t [407] = 5.8, p < .001). The extent to which the known recidivism event contributed to attrition or to the clinical ratings of "treatment failure" was not recorded, but would be expected to be minimal because few of the offenders were in active treatment when they recidivated.

The early family background of the recidivists was significantly worse than that of the non-recidivists. The recidivists were those most likely to have histories of sexual/emotional abuse, neglect, long-term separations from parents and negative relationships with their mothers. Twenty-seven percent of the recidivists had been taken into the care of child protective services compared to 15% of the non-recidivists (χ^2 = 8.86, df = 1, n = 409, p < .003).

In adulthood, the recidivists were more likely than the non-recidivists to meet the diagnostic criteria for antisocial personality disorder (64% versus 49%, p < .002) and psychopathy (21% versus 8%, p < .001). As well, the measured intelligence of the recidivists (FSIQ = 94.4) was lower than that of the non-recidivists (FSIQ = 100.1) (t [314] = 3.34, p < .001). The available file information revealed low frequencies of psychotic disorders in both groups (approximately 5%).

Consistent with the differences on criminal lifestyle measures (psychopathy, antisocial personality disorder), the recidivists had significantly higher scores than the non-recidivists on the objective criminal risk scales, such as the SIR scale (t [172] = 4.21, p < .001) and the VRAG (t [265] = 6.14, p <

.001). Overall, however, the scores for both groups were quite similar, with the SIR scores (Bonta et al., 1996) indicating low to moderate risk for general criminal recidivism (16 - 40% recidivism risk over three years), and the VRAG scores (Webster et al., 1994) indicating moderate risk for violent recidivism (48 - 58% violent recidivism risk over 10 years).

Due to deliberate matching, the objective measure of risk for sexual offense recidivism (RRASOR, Hanson, 1997) was not significantly different between the groups. Overall, the average RRASOR score indicated moderate risk for sexual offense recidivism (21 - 37% over 10 years).

<u>Comparisons on Stable Dynamic Factors</u>

The next section examines the dynamic risk factors as reported by the supervising officers. These analyses first examined whether particular risk factors were <u>ever</u> noted during supervision.   Because neither the timing of the problems nor changes during the course of supervision were addressed at this stage, the risk factors noted were assumed to reflect relatively stable characteristics.

The relationship between stable dynamic risk factors and recidivism is presented in Table 2 for the total sample, as well as for the subsamples of rapists, boy-victim child molesters and girl-victim child molesters. To facilitate comparisons across subsamples, the findings are reported as correlation coefficients. Correlations provide equivalent tests of statistical significance, as do t, F, or χ^2 , but have the advantage of providing an effect size estimate that is independent of sample size (Rosenthal, 1991). The same small correlation may be statistically significant in the total sample but, due to reduced sample size, not in a subsample. By observing the magnitude of the correlations across the groups, readers can judge whether the variability is likely attributable to random fluctuation or to meaningful group differences. As an aid in interpreting the correlations, the 95% confidence interval for the correlations involving the total group (n = 409) is approximately ± .10, and for the subgroups, ± .17 (for n = 120). Confidence intervals decrease somewhat as the size of the correlation increases. Correlations whose 95% confidence intervals do not overlap would be considered to be different from each other while preserving the overall Type I error rate at 5% (Schmidt, 1996). The variables were coded such that positive correlations indicate that the characteristic was more common among the recidivists than the non-recidivists.

As can be seen in Table 2, there were significant differences between the recidivists and non-recidivists on most of the dynamic variables examined in this study. Compared to the non-recidivists, recidivists were frequently unemployed (r = .10, p < .05), although this effect appeared to be more important for the rapists (r = .31, p < .001) than the girl-victim child molesters (r = -.08, ns). Substance abuse problems during supervision were also more common among the recidivistic sexual offenders (r = .17) and more recidivists (10.1%) than non-recidivists (3.0%) had used anti-androgens (sex drive reducing medications) (r = .15, p < .01).

None of the measures of general psychological symptoms differentiated the recidivists from the non-recidivists. Negative mood, anger, and general life stress were equally common in both groups. The rates of serious psychiatric symptoms (hallucinations, major depression) were similar in both groups, but this was expected given our attempt to match offenders on serious psychiatric history.

The non-recidivists' social environment tended to have more positive than negative social influences (average of 2.1 versus .72), whereas the pattern was reversed for recidivists (1.3 negative versus 1.1 positive). Intimacy problems were more common among the recidivists than the non-recidivists (r = .10, p < .05). Intimacy problems were unrelated to recidivism for the boy-victim child molesters (r = -.01), but this may be due to restriction of range - almost all had severe intimacy problems. Only 16% of the boy-victim child molesters had any current intimate relationship (16%) compared to 34% of the girl-victim child molesters and 35% of the rapists. Contrary to expectation, there was no overall difference in the frequency with which the recidivists and non-recidivists were known to associate with other sexual offenders (r = -.04).

All of the attitude measures differentiated the recidivists from the non-recidivists. In general, the recidivists were described as showing little remorse or concern for their victims, believing that sexual crimes can be justified (r = .28), feeling that some women deserved to be raped (r = .19), having attitudes that sexualized children (r = .19), and feeling that they were entitled to express their strong sexual drive (r = .29). In general, there was some specialization between the type of attitudes and the type of victim (recidivistic rapists espoused rape attitudes; recidivistic child molesters sexualized children) but the differences between the groups were not statistically significant.

The recidivists tended to view themselves as little risk for committing new sexual offenses and took few precautions to avoid high risk situations (r = .38, p < .001). Not surprisingly, they were more likely than the non-recidivists to create or expose themselves to situations in which access to potential victims was likely (e.g., child oriented hobbies, flashy cars). The recidivists were also more likely than the non-recidivists to engage in socially deviant (although not necessarily illegal) sexual activities, such as the use of prostitutes, excessive masturbation, and self-reported deviant sexual fantasies/urges (r = .20, p < .001).

Table 2

Stable dynamic risk factors for rapists, boy-victim child molesters and girl-victim child molesters.

Measure	total	rapists	CM boys	CM girls
sample size	406	131	120	143
Employment				
Frequency unemployed	.10*	.31***	.13	-.08
Type of employment a problem	.02	.07	-.02	-.01
Drug use				
Substance abuse	.17**	.22**	.26**	.05
Ever used anti-androgens	.15**	.19*	.08	.19*
Psychological symptoms				
Negative mood	-.01	.10	-.10	-.03
Anger	.07	.13	-.01	.06
Psychiatric symptoms (any)	-.03	.09	-.07	-.11
Life stress	-.02	.07	.01	-.13
Social adjustment				
Intimacy problems	.10*	.18*	-.01	.10
General social problems	.05	.15	.03	-.02
Association with sex offenders	-.04	-.01	.17	-.04
Number of significant influences				
positive	-.29***	-.45***	-.32***	-.08
neutral	.07	.11	.16	-.02
negative	.23***	.23**	.29**	.18*
Attitudes				
Low remorse/victim blaming	.28***	.37***	.37***	.12
Rape attitudes	.19***	.32***	.22*	.07
Child molester attitudes	.19***	.14	.36***	.18*
Sexual entitlement	.29***	.33***	.32**	.23**

Measure	total	rapists	CM boys	CM girls
Self management				
Sees self as no risk	.38***	.43***	.52***	.22**
Victim access	.26***	.28**	.37***	.17*
Sexual deviancy				
Sexual pre-occupations	.20***	.28**	.22*	.10
Appearance				
Dirty/smelly/inappropriate	.10*	.24**	.02	.05
Any strong change				
for the worse	.04	.02	.06	.02
for the better	-.19***	-.21*	-.25**	-.13
Lifestyle				
Antisocial lifestyle	.26***	.38***	.34***	.09
Uncontrolled release environment	.17**	.12	.31**	.10
No opportunities for fun/ relaxation	.04	.02	.10	.00
Using religion as a shield	.00	.03	.01	-.04
Cooperation with supervision				
Treatment attendance (any)	-.10	-.07	-.10	-.11
Disengaged	.30***	.40***	.39***	.14
Manipulative	.29***	.27***	.47***	.16*
No show/late	.22***	.18*	.36***	.14
Overall cooperation	.36***	.36***	.50***	.24**

Note. The variables were coded such that positive correlations indicate that the characteristic was more common among the recidivists than the non-recidivists.
*p < .05, **p < .01, ***p < .001.

The physical appearance and grooming of the recidivists tended to be slightly worse overall than that of the non-recidivists (r = .10, p < .05). Although strong changes in appearance were rarely noted, the non-recidivists were more likely than the recidivists to improve their appearance during the course of supervision (r = -.19, p < .001).

The recidivists were more likely to have a generally chaotic, antisocial lifestyle than the non-recidivists (r = .26, p < .001). The recidivists were most likely to use their leisure time aimlessly, to resist personal change (even when it was to their obvious benefit), and to hold strongly antisocial attitudes. As well, their release environment was described as relatively uncontrolled in terms of access to victims, drugs and alcohol (r = .17, p < .01). The frequency of constricted lifestyles was not different between the groups (i.e., no opportunity for fun/relaxation). As well, there were no differences in the rate at which the offenders took shelter in religion (r = .00).

The officers described the non-recidivists as more cooperative with supervision than the recidivists (r = .36, p < .001). Although both groups attended equal numbers of treatment programs, the recidivists tended, more often, to be disengaged from treatment and community supervision (r = .30, p < .001), to attempt to deceive and manipulate the officers (r = .29, p < .001), and to miss scheduled appointments (r = .22, p < .001).

With rare exceptions, the same risk factors were considered important for rapists, boy-victim child molesters and girl-victim child molesters. Of these three groups, the girl-victim child molesters appeared to be the most distinct. The same risk factors seemed important for all groups, but the effects were generally smaller for the girl-victim child molesters than for the rapists or boy-victim child molesters. Despite having a slightly larger sample size, only 8 out of 33 correlations were statistically significant for the girl-victim child molesters, compared to 17/33 for the boy-victim child molesters and 19/33 for the rapists.

<u>Acute Dynamic Risk Factors</u>

The preceding analyses concerned overall differences between recidivists and non-recidivists during the full course of community supervision. We now examine the changes that the officers noticed just prior to the recidivism event (acute risk factors). Consequently, each rating was recoded as a change for the worse (-1), a change for the better (+1), or no change (0 - continuously bad or never a problem). The analyses of the acute risk factors used the same categories and scales as were used to describe the stable group differences. However, some of the social support, attitude, and release environment questions were not reassessed as reliable changes were not expected. Thirty-three offenders were also excluded because the officers felt they had insufficient information to rate change (mostly because the offenders recidivated soon after release).

Table 3 presents the correlations between acute changes and recidivism status. The variables were coded such that positive correlations indicate that the recidivists deteriorated (or failed to improve) in comparison to the non-recidivists.

Most of the factors that were stable risk predictors were also acute risk predictors. In other words, the ongoing (stable) problems that differentiated the recidivists and non-recidivists tended to get worse just prior to the recidivism event. The effects were not large, however, because there was relatively little change on the risk factors during the six month study period. For any individual item, 89% of the ratings indicated "no change". Nevertheless, almost all the offenders (99%) showed some change on at least one item during the course of supervision. Even though the effects were small, they were consistently in the predicted direction, with the non-recidivists' behaviour tending to improve and the recidivists behaviour tending to deteriorate during the course of supervision.

A change in employment status was not a significant acute predictor of recidivism for this sample (r = -.04, ns). Recidivists, however, were more likely than the non-recidivists to increase their substance abuse just prior to re-offending (r = .16, p < .01).

Of 22 offenders who were taking anti-androgen medication at T2, 17 were recidivists (p < .05). Although four of the five cases that stopped taking anti-androgens recidivated, all eight cases that started anti-androgen medication at T2 recidivated (p < .05).

The recidivists tended to show an increase in their psychological symptoms just prior to re-offending (r = .16 for negative mood, .20 for anger, and .11 for general psychiatric symptoms). On average, the mood of the non-recidivists tended to improve during the course of supervision, whereas the recidivists' mood deteriorated.

The offenders' social networks were not fully reassessed because few changes were expected. Of the three content areas that were examined at both time periods, the only acute predictor was a general measure of social isolation and interpersonal conflict (e.g., friends, family, co-workers) (r = .11, p < .05).

In comparison to the non-recidivists, recidivists tended to maintain their minimizations and justifications during the course of supervision (r = .18, p < .001). The attitudes of the non-recidivists gradually became more empathic and more responsible between T1 and T2 whereas the recidivists showed little or no change.

Table 3

Acute risk factors for rapists, boy-victim child molesters and girl-victim child molesters.

Measure	total	rapists	CM boys	CM girls
Sample size	373	124	109	140
Employment				
Loss of employment	-.04	.02	.08	.07
Type of employment a problem	.07	.23**	-.12	.09
Drug use				
Substance abuse	.16**	.17	.32**	.10
Anti-androgens				
started	.11*	-	.16	.09
stopped	-	-	-	-
Psychological symptoms				
Negative mood	.16**	.15	.32**	.04
Anger	.20***	.25**	.30**	.07
Psychiatric symptoms	.11*	.05	.17	.12
Life stress	.06	.01	.14	.04
Social adjustment				
Conflicts with intimate	.01	.04	.12	-.08
General social problems	.11*	.16	.27**	-.09
Association with sex offenders	.00	.12	-.09	.03
Attitudes				
Low remorse/victim blaming	.19***	.13	.24**	.18*
Self management				
Sees self as no risk	.13*	.15	.27**	-.01
Victim access	.24***	.18*	.36***	.15

Measure	total	rapists	CM boys	CM girls
Sexual deviancy				
Sexual pre-occupations	.09	.09	.29**	-.06
Appearance				
Dirty/smelly/inappropriate	.12*	.15	.25**	.03
Any strong change				
for the worse	.10	.23*	.08	.00
for the better	.08	.07	.17	.03
Lifestyle				
Antisocial lifestyle	.06	.00	.06	.08
No opportunities for fun/	.06	.10	.06	-.04
relaxation				
Using religion as a shield	-.07	-.09	-.10	-.09
Cooperation with supervision				
Treatment attendance				
started	.02	-.17	.14	.02
ended	.02	-.02	-.09	.14
Disengaged	.22***	.28**	.17*	.20
Manipulative	.10*	.06	.10	.12
No show/late	.10*	.13	.05	.13
Overall cooperation	.23***	.32***	.19*	.18*

*p < .05; **p < .01; ***p < .001.
Note. Positive correlations indicate that the recidivists deteriorated more than did the non-recidivists.

    Just as the recidivists generally had poorer self-management strategies than the non-recidivists, the recidivists tended to expose themselves to high risk situations (r = .23, p < .001) and to minimize their relapse potential just prior to re-offending (r = .13, p < .05).

    According to officer reports, there was no noticeable increase in sexual pre-occupations prior to re-offending (r = .08, p > .06). There was some evidence, however, that sexual pre-occupations may be a more salient risk factor

for boy-victim child molesters (r = .29, p < .01) than for girl-victim child molesters (r = -.06, ns), but these differences were not statistically significant (their 95% confidence intervals overlapped).

The physical appearance and grooming of the recidivistic sexual offenders tended to deteriorate prior to re-offending, although the effect was not large (r = .13, p < .05). There were no significant changes on the general lifestyle measures, such as antisocial lifestyle, no opportunities for fun/relaxation, or using religion as a shield.

Just as the recidivists were generally non-cooperative with supervision, their compliance deteriorated just prior to re-offending (r = .22, p < .001). Ending (or starting) treatment was unrelated to recidivism, but the recidivists tended to become increasingly disengaged, absent, or generally non-cooperative during the course of supervision. It is interesting to note that even the non-recidivists tended to miss more and more appointments as supervision progressed, but recidivists missed the most appointments (r = .10, p < .05).

As with the stable risk factors, the acute risk factors tended to have similar correlations with recidivism for the rapists, the boy-victim child molesters, and the girl-victim child molesters. Certain differences were observed, but, considering the number of comparisons, it is difficult to determined the extent to which the observed differences are attributable to random fluctuation. As before, the correlations tended to be smaller for the girl-victim child molesters than for the other two groups. Overall, only 3 out of 27 correlations were statistically significant for the girl-victim child molesters, compared to 11/27 for the boy-victim child molesters and 6/27 for the rapists.

Case Note Coding

The officers' case notes tended to be brief, with little direct reference to the risk factors targeted in the interview. Approximately 10% of the files contained no information at all (either no notes or no content). The proportion of uninformative records was not significantly different between the recidivists and the non-recidivists.

The case notes allowed group comparison on 24 of the 34 variables examined in the interview (intimacy deficits, the number of positive/negative/neutral social influences, attitudes tolerant of sexual assault, and the quality of the release environment were not coded).

Only one of the 24 comparisons revealed significant differences between the groups at T1 (six months prior to recidivating). At T1 the recidivists, in comparison to the non-recidivists, failed to acknowledged their risk for recidivism (r = .11, p < .05, "Sees Self As No Risk" scale). As expected, more of the T2 variables than the T1 variables were related to recidivism. Just prior to reoffending, the officers noted that the recidivists showed increased signs of

sexual preoccupation and deviance (r = .12, p < .05, "Sexual Pre-occupations"), had access to potential victims (r = .11, p < .05, "Victim Access" scale), and failed to acknowledge their recidivism risk (r = .10, p < .05, "No Risk" scale). The recidivists also showed increased anger just prior to sexually reoffending (r = .11, p < .05). Six of the seven cases in which the notes mentioned that the offender was taking anti-androgens were recidivists (p < .05). For an additional 15 cases, the offenders were known, by file review, to be taking anti-androgen medication at T2, but this was not recorded in the officers' T2 case notes.

Difference scores (T1 - T2) were used to examine the changes recorded just prior to recidivating. Of the 24 comparisons, only two were significant. Officers noted an increase in anger (r = .12, p < .05) between T1 and T2 for the recidivists, and the eventual recidivists were those most likely to start anti-androgen medication during T2 (r = .12, p < .05).

Unique Contribution of Dynamic Factors.

The next set of analyses examined the extent to which the dynamic factors (stable and acute) contributed new information after controlling for pre-existing differences in static risk factors. The three best predictors in each domain (static, stable, acute) were first selected through step-wise regression. Next, the unique contributions of each set of predictors were then compared using hierarchical regression (see Table 4). As only cases with complete information were included, the sample size was substantially reduced (n = 180).

Static predictors

The three best static predictors were the VRAG, IQ, and sexual deviance (a composite measure with one point given for any juvenile sexual offenses, any paraphilias [e.g., exhibitionism, cross-dressing], any stranger victims, and diverse age/sex of victims). Overall, these static variables produced a multiple correlation of .40 (p < .001) with sexual recidivism.

Stable predictors

The best three stable predictor variables from the officer interview also strongly differentiated the groups (R = .53, p < .001; "Sees self as no risk", "Poor social influences", and "Sexual entitlement").

Table 4

The unique contribution of the best three static, stable and acute risk factors.

Predictor variables	r	beta	R (for set)	Unique R2 (for set)
Static				
VRAG	.32***	.02	.40***	.035*
Sexual deviance	.24**	.12		
IQ	-.24**	-.16*		
Stable				
Sees self as no risk	.47***	.27**	.53***	.141***
Poor social influences	.39***	.15*		
Sexual entitlement	.37***	.1		
Acute				
Access to victims	.28***	.12	.32***	.035*
Anger	.19**	-.01		
Noncooperation with supervision	.25***	.13		
Total (df = 9, 170)			.60***	.360***

Note. Beta values are when all nine predictors are included in the analysis.
N = 86 recidivists, 94 non-recidivists.
*p < .05, ** p < .01, *** p < .001.

<u>Acute predictors</u>

Similarly, the three best interview acute variables ("Access to victim", "Noncooperation with supervision", and "Anger") produced a multiple R of .32 (p < .001).

When the variables from each set were combined, the multiple R increased to .60 (p < .001). Not all of the individual variables were significant in the final regression equation. Nevertheless, each set of predictors contributed unique variance (using equation 3.27 from Pedhazur, 1982). When entered last in the regression equation, the R^2 increased by .035 (p < .05) for the static factors, .141 (p < .001) for the stable factors, and .035 (p < .05) for the acute factors.

Table 5

The unique contribution of static and dynamic factors rated from case notes.

Predictor variables	r	beta	R (for set)	Unique R2 (for set)
Static				
VRAG	.36***	.27***	.43***	.16***
Sexual deviance	.24***	.14*		
IQ		-.23***	-.18**	
Case notes (at Time 2)				
Anger	.13*	.04	.21**	.018$^{\nabla}$
Sexual Pre-occupations	.17**	.12*		
Total (df = 5, 213)			.45***	.20***

Note. Beta values are when all five predictors are included in the analysis.
N = 120 recidivists, 99 non-recidivists.
$^{\nabla}p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$.

     Because the interview data was vulnerable to retrospective recall bias, separate analyses compared the static and dynamic risk factors using only file information (See Table 5). The static variables were the same as shown above (VRAG, sexual deviancy, IQ), but the values change slightly due to increased sample size (n = 219). Only two of the dynamic factors from the note codes contributed unique variance in stepwise regression ("Anger", and "Sexual Pre-occupations" at T2). The use of anti-androgen medication was not treated as a dynamic risk factor as the introduction of these drugs likely indicated that the officers had already identified the offender as high risk.

     The case note variables only marginally contributed variance over that covered by the static variables (R^2 increased by .018, p < .08, two-tailed). The case note "Sexual Pre-occupations" scale, however, significantly predicted recidivism after controlling for the three best static predictors (beta = .12, p < .05).

Discussion

     The purpose of this study was to identify factors that could be useful for officers supervising sexual offenders in the community. The potential risk factors were those suggested by social cognitive theory and by preliminary interviews with more than 60 community supervision officers. Overall, substantial differences were observed between the 208 sexual offenders who sexually recidivated while on community supervision and a comparison group of 201 non-recidivists. The recidivists were considered to have poor social supports,

attitudes tolerant of sexual assault, antisocial lifestyles, and poor self-management strategies. Not surprisingly, the officers considered the recidivists to have displayed poor cooperation with supervision, as indicated by being disengaged, manipulative or absent. Recidivists and non-recidivists had equivalent levels of life stress and negative affect, but the recidivists tended to show an increase in anger and subjective distress just prior to re-offending. In other words, psychological symptoms appeared as acute, but not stable, risk factors. With rare exceptions, the same risk factors applied to both rapists and child molesters.

The interview based results were informative, but open to alternative interpretations. The first concern is that the supposedly "dynamic" problems observed during the course of supervision could be proxies for enduring (static or highly stable) risk factors. Despite our efforts to match the recidivists and non-recidivists on many static predictors, the background characteristics of recidivists remained the most problematic. In particular, the recidivists were more likely than the non-recidivists to have chronic antisocial lifestyles, long histories of diverse sexually deviant behaviours, prior treatment failure, low intelligence, and poor childhood environments. Nevertheless, even after statistically controlling for pre-existing group differences, the dynamic variables continued to be strongly associated with recidivism. The recidivists were generally more problematic than the non-recidivists and their behaviour deteriorated just prior to recidivating.

The second concern is the extent to which the findings were influenced by retrospective recall bias. Both the officers and the field researchers were fully aware of who had, or had not, recidivated. Consequently, old information may take on new significance once the offender is known to have re-offended. Such hindsight biases were of particular concern for the officer interviews, because, in some cases, the officers were asked to recall events that transpired 4-5 years previously.

Rater bias was also a concern. Although the coders were instructed to separate the information related to the recidivism offense from the rest of the file information, such a separation was often difficult, if not impossible (e.g., extracting information from summary reports that included both index and recidivism information). As well, the Psychopathy Checklist was explicitly scored using all the file information, which would have artificially increased the PCL-R (and VRAG) scores of the recidivists.

The present study attempted to control for retrospective recall biases by examining the case notes completed by the officers before they knew of the recidivism event. This strategy was only partially successful, due to the limited information available in the case notes. Nevertheless, the major dynamic risk factors reported in interview were also present in the contemporaneous case notes. The officers recorded concerns about sexual preoccupation/compulsivity, poor self-management strategies (sees self as no risk), increased victim access

and increased anger in the 4-6 weeks prior to recidivating. The effects were small, but the consistency of these findings with the interview results suggest that the interview results cannot be completely attributed to recall bias.

The dynamic risk factors identified in the current study were similar to those identified by Quinsey et al. (1997). These researchers found that the strongest predictor of violent recidivism among mentally disordered offenders was a dimension they called "Dynamic Antisociality". The components of Dynamic Antisociality (e.g., complains about staff, no remorse, ignores previous violent acts, unrealistic discharge plans) were similar to our measures of negative attitudes, poor self-management, and lack of cooperation with supervision (e.g., No Risk, Low Remorse/Victim Blaming, Antisocial Lifestyle, Victim Access). Quinsey et al. (1997), however, found much larger effects in the case notes (R = .61) than we did (R = .21). The larger effects may be attributable to better record keeping, different scoring procedures, or to differences in sampling procedures. Quinsey et al. (1997) eliminated from their yoked comparison groups offenders who had already eloped or offended while under supervision, which would increase the differences between their recidivistic and non-recidivistic groups. In contrast, 40% of our "non-recidivist" comparison group had previously failed on conditional release.

Whereas Quinsey et al. (1997) focused primarily on non-sexual recidivism, Pithers et al. (1988) specifically looked for the precursors of sexual recidivism. Because no comparison group was used, it is difficult to know whether the factors considered by Pithers et al. were more common among recidivists than non-recidivists. Nevertheless, it is interesting to note that those factors deemed to be important in at least 70% of Pithers et al.'s cases (anger, cognitive distortions, low victim empathy and offense planning) were similar to the factors that differentiated the recidivists and the non-recidivists in both the current study and that of Quinsey et al. (1997). Pithers et al. (1988), however, found that anger was a more important risk factor for rapists than it was for child molesters. In contrast, our study found anger to be important for both rapists and boy-victim child molesters, but less important for girl-victim child molesters.

Of the three main types of risk factors (static, stable dynamic, acute dynamic), the stable dynamic factors most strongly differentiated the recidivists and non-recidivists. This finding is partially a function of the research design, which matched the groups on many static variables. It was impossible, for example, for RRASOR scores (Hanson, 1997) to differentiate the groups because we explicitly matched the offenders on these variables. The finding that some static factors continued to differentiate the groups supports the tenacity of historical variables.

Our previous meta-analytic review found that sexual offense recidivism was related to sexual deviancy, and, to a lesser extent, to general criminality (Hanson & Bussière, 1998). In the current study, in contrast, criminal lifestyle

variables (e.g., VRAG scores) tended to be stronger predictors than were the sexual deviancy measures. Again, the relatively magnitude of the predictors may simply be a function of our sampling procedure. If the offenders were closely matched on sexual deviancy measures, then the design could only emphasize other type of predictors.

The study found similar risk factors for the different types of sexual offenders, but fewer factors were significant for the girl-victim child molesters than for the rapists or the boy-victim child molesters. This pattern was unexpected. Assuming that this pattern is more than a statistical anomaly, it may be that girl-victim child molesters follow a different offense cycle than other sexual offenders. One possibility is that the girl-victim child molesters may be less socially and sexually deviant. Rather than sharing the courtship disorder of the rapists (Freund, 1990; Freund, Seto & Kuban, 1997), or the deviant victim choice of the boy-victim child molesters, some girl-victim child molesters may simply occupy the low end of a continuum of normal age preference. Similarly, some men may choose to have sex with girls when their preferred sexual partners (mature females) are not immediately available. Until the effects are replicated, however, any interpretation of the relative unpredictability of the girl-victim child molesters is at best tentative.

An interesting finding of the current study is the striking failure of anti-androgen medications to prevent sexual offense recidivism. Uncontrolled case studies have typically found antiandrogen use to be associated with decreased sexual drive and reduced temptations to reoffend (Fedoroff, Wisner-Carlson, Dean & Berlin, 1992; Money & Bennett, 1981). The finding in the current study that a greater number of recidivists than non-recidivists were taking sex drive reducing medications can probably be explained by the officers' desire to intervene in the highest risk cases. Given that all the offenders who started anti-androgens (most typically cyproterone actetate) recidivated, hormonal intervention was clearly insufficient. It is possible that anti-androgens could increase the risk if their introduction is associated with decreased vigilance on the part of the offender and/or his supervising officer. The study was not designed to test the efficacy of anti-androgen medication, and the sample size was too small to make strong conclusions. Nevertheless, officers should be aware that sexual offenders still present considerable risk for sexual offense recidivism after the introduction of sex drive reducing medication.

Quality of community supervision.

Although the study focused on the behaviour of the offenders, this study could not help but provide some observations on how sexual offenders are supervised across Canada. There was significant variation in supervision practices both across and within jurisdictions. These variations included sexual offenders being supervised by specialists versus generalists, regular home visits required versus home visits prohibited and probation officers co-leading groups

with psychologists versus therapists having no communication with supervision officers on the grounds of patient-client confidentiality.

The quality of the case notes was also variable, with many containing little information. Several factors were observed that could be obstacles to high quality records. Firstly, informal interviews with the officers indicated that many had never received specific training as to the appropriate case facts to document in the supervision of sexual offenders. Given the lack of knowledge concerning dynamic risk factors for sexual offenders, it was not surprising that many officers supervised sexual offenders as they would any other type of offender (e.g., thieves, drunk drivers).

Even given appropriate training, some officers reported feeling constrained as to what they were willing or able to record. Writing detailed case notes is a low priority when officers feel stressed by large case loads. As well, policies directing the rapid destruction of records (as little as three years after last contact) provide little incentive to produce records for the benefit of future readers. Furthermore, some officers wanted to limit potential liability by avoiding recording observations that could be deemed speculative.

That the recidivists were perceived as failing to cooperate with supervision suggests another link between offender characteristics and supervision practice. Although the study assessed offender behaviour as independent from the behaviour of their supervising officers, in practice, the two are highly related. Our measures of cooperation with supervision would not only be influenced by the offenders' behaviour, but also by the officers' capacity to establish rapport with difficult clients. Similarly, the association between observed dynamic risk factors and recidivism should be reduced when officers are able to effectively intervene in high risk cases.

Conclusions and recommendations

Low recidivism base rates present special challenges to prospective designs. The recidivism rate in the current study was artificially set at 50%, which would be considerably higher than the 10% - 15% sexual offense recidivism rates typically found after 4-5 years in the community (Hanson & Bussière, 1996, 1998). Prospective designs provide the best information, but require either long follow-up periods (5 years minimum), large sample sizes, or exceptionally high risk offenders. Researchers interested in retrospective matched designs (as in the current study) may want to begin by ensuring that the quality of case records is sufficient for their purposes.

Despite the study's limitations, this research provides some guidance to those interested in improving the community supervision of sexual offenders. The dynamic risk factors found in the current study should be routinely evaluated during supervision. The results suggest that offenders are most at risk for reoffending when they become sexually preoccupied, have access to victims, fail to acknowledge their recidivism risk, and show sharp increases in dysphoric moods, particularly anger. By carefully monitoring the offender's risk indicators, officer may be able to provide graduated and responsive interventions well before the point of no return.

Acknowledgments

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Appendix I

The following items were coded from the offenders' files based on their response to sexual offense specific treatment. Each item is score "0 - no evidence" "1 - some, possible evidence" and "2 - yes", except for the reverse scored items, which were coded as follows: "2 - no evidence" "1 - some, possible evidence" and "0 - yes". The total score is the sum of the individual items.

Has the offender ever . . . . ?

1. denied all need for treatment.
2. refused treatment.
3. always refused treatment.
4. been described as motivated for treatment. (Reversed)
5. been described as unmotivated for treatment.
6. dropped-out of treatment.
7. completed treatment. (Reversed)
8. been described as treatment failure.
9. been described as treatment success. (Reversed)
10. tried hard in treatment. (Reversed)
11. did not try hard in treatment.
12. been described as good candidate for treatment. (Reversed)
13. been described as poor candidate for treatment.

Appendix II

Interview subscales

_____

Has _____ (name of offender) ever had a problem with . . .

Employment

Unemployed/at school (single item)
Type of employment a problem or concern (single item)

Drug Use

Is the offender taking anti-androgens?

Substance abuse (alpha = .66)

  illicit drug use
  alcohol problems

Psychological Symptoms

Negative mood (alpha = .71)

  depression/discourage/hopeless
  anxiety/excessive worry/stress
  frustration
  loneliness
  suicidal thoughts

Anger (alpha = .77)

  flying off the handle/volatility/anger
  anger towards women
  any aggressive/rude/threatening to others

Psychiatric symptoms (alpha = .56)

  hallucinations/delusions
  paranoid thoughts

Life stress (alpha = .42)

moderate life change
serious life change
health problems
media/community pressure
rejected by community
financial problems

Social Adjustment

<u>Intimacy problems</u>

2 = no serious sexual relationships (single/divorced)
1 = married/common-law with conflicts
0 = married/common-law with no obvious conflicts

Possible conflict areas (alpha = .74)

conflicts with intimate partner (general)
sex problems with intimate partner
distrust his sexual partner
affairs/infidelities

<u>General Social Problems</u> (alpha = .58)

social isolation
withdrawal
conflicts/rejected by family
negative conflicts with others (workers/friends)
rejected by community

<u>Association with sexual offenders</u> (alpha = .63)

any association with other sexual offenders
association with sex offenders as a problem

Attitudes

Low remorse/victim blaming (alpha = .85)

   attitudes tolerant of sex crimes
   sex crimes are acceptable in certain circumstances
   does he "own" his crimes (reverse scored)
   victim blaming
   low victim empathy
   no remorse
   minimization/justifications
   denial of offense
   fail to understand how his behaviour effects others

How much do you think that _____ would agree with the following statements?

Rape attitudes (alpha = .91)

   many women would secretly like to be raped
   when women go around wearing short skirts or tight tops they are
      asking for trouble
   a lot of times when women say "no" they are just playing hard to get
      and really mean "yes"
   that women are playing with him sexually
   that some rape victims deserve what they get

Child molester attitudes (alpha = .92)

   some children are mature enough to enjoy sex with adults
   some children like to sexually tease him
   a child who does not resist sexual touching really feels OK about
      being touched
   some children are so willing to have sex that it is difficult
      to stay away from them

Sexual entitlement (alpha = .72)

   everyone is entitled to sex
   men need sex more than women do
   he has a higher sex drive than most people
   once they get you wound-up sexually, you just can't stop

Self Management

Sees self as no risk (alpha = .72)

sees self as no risk/failure to recognize risk
will make sacrifices to avoid high risk situations (reverse scored)
testing known risk factors (sexual)
"I'm not a pervert, I want to put this behind me, why do you keep
    dragging things up?"
only pled guilty because "his lawyer told him to"
"everything is fine/great/no problem" - but you feel that he is
    covering up
fail to acknowledge and understand his sexual problems

Victim access (alpha = .69)

access to victims (general)
cruising/creating opportunities to reoffend
grooming of victims
bicycle/4X4/motorcycle/flashy car
computer/surf the net
hobbies: camera/fishing/kites/boats

Sexual Deviancy

Sexual pre-occupations (alpha = .70)

pornography use (include catalogues/baby magazines)
strip bars/massage parlors/prostitutes
lusty talk
excessive masturbation
deviant sexual fantasies/urges
preoccupation with sex crimes (own/others)
preoccupation with sex/porno/hookers

Appearance

Dirty/smelly/inappropriate (sexual) or other (single item)
Any strong change in appearance (single item)

Lifestyle

Was the offender released into a "relatively controlled environment", a "moderately controlled environment", or an "uncontrolled environment" in terms of access to victims, drugs or alcohol? (single item)
No opportunity for fun/relaxation (single item)
Using "spirituality"/religion as a shield (single item)

Antisocial lifestyle (alpha = .75)

  bored/aimless use of leisure time
  unbalanced lifestyle
  staying out/working late/breaking curfew
  generally chaotic lifestyle
  "getting into" partying
  contacts with police
  restless, hyperactive energy
  irrational resistance to personal change
  thinking your suggestions are an assault upon his person or demeaning
  does he hold strongly antisocial attitudes

Non-cooperation with supervision

Did he attend group treatment? one-on-one's?

Disengaged (alpha = .83)

  just going through the motions
  open to talking about treatment (reversed)
  invested in treatment (reversed)
  silent/non-disclosing
  keeping secrets from you
  do you have the feeling that you generally know what is going on with
     this offender? (no)
  do you feel that the offender is working with you? (no)

Manipulative (alpha = .80)

  inconsistencies between what he tells you and what the treatment team
     tells you
  any feeling that he's being phony with you
  tries to manipulate you
  tries to "play the system"
  tries to take control of the interview
  trying to be "buddy buddy" with you

attempts to focus interview on irrelevant issues

No show (alpha = .78)

ever late
ever no show with you
ever no show with other commitments
requests to reschedule (all/phone)
number of broken conditions - whether you breached him or not

Total Non-cooperation with Supervision Scale (alpha = .89)

all the items in the Disengaged, Manipulative and No Show scales plus

shows up unscheduled to talk
tries to limit meeting time (e.g., someone in car)
denied any inappropriate requests
general non-cooperation with treatment
catching the offender in lies/contradictions
curt/rude/threatening with you
do you feel the offender is working against you?
how many times did you stay late or take phone calls at home about
    this guy?
have you lost sleep over this guy?