

Differentiation and Predictive Factors in  
Adolescent Sexual Offending

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## Abstract

Adolescent males perpetrate approximately 20% of all sexual offenses in North America (Federal Bureau of Investigation, 1993; Statistics Canada, 1997), yet there is little published research within the area, especially when compared to the adult sexual offending literature. The purpose of this study was to differentiate adolescent sexual and nonsexual offenders and to examine the predictive criterion validity of two adolescent risk/need assessment procedures, the ERASOR (Estimate of Risk of Adolescent Sexual Offence Recidivism) and the YLS-CMI (Youth Level of Service/Case Management Inventory). Archival data were collected from 220 young offender files in a community-based assessment and treatment unit. Recidivism data spanning up to 14 years (1987 – 2002), with an average follow-up period of 4 years were obtained from CPIC. In the differentiation study, the adolescent sexual offender group was quite different from the nonsexual offender group. The sex offenders displayed lower mean scores on all eight of the YLS/CMI propensity subscales but higher Deviant Sexual Interests on the ERASOR. In the prediction study, ERASOR was the single best predictor of sexual recidivism ( $r = .37$ , ROC = .713) while YLS/CMI was the single best predictor of any recidivism ( $r = .38$ , ROC = .720). Subscale and item analyses are reported and limitations are discussed.

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## Introduction

### *Overview*

Sexual offending continues to be a significant societal problem that is perpetrated predominately by adolescent and adult males. Consequences of sexual assault such as depression, suicide, learning problems, substance abuse, interpersonal difficulties, and parenting difficulties can be chronic and devastating for victims, resulting in tremendous human and health-care costs (Becker, 1988a; Koss, 1993; Marshall, 1992).

Although the literature describing adult male sexual offenders is substantial, by comparison, the literature for adolescent sexual offenders is limited. Prior to 1980, fewer than 20 papers examining adolescent sex offenders had been published. The prevailing attitude toward adolescent male sexual offenders during that time, i.e., that “boys will be boys”, resulted in the magnitude of these crimes being minimized and considered largely nonthreatening.

Of reported offences in Canada and the United States, adolescents commit approximately 20 percent of all sexual assaults against adults and teenagers, and 30 to 50 percent of sexual assaults against children (Barbaree, Hudson, & Seto, 1993; Becker, Kaplan, Cunningham-Rathner, & Kavoussi, 1986, Federal Bureau of Investigation, 1993). In 1997, 21 percent of those charged with sexual assault, in Canada, were aged 12 to 19 (Statistics Canada, 1997) and in 2002, males aged 13 to 17 had the highest rates of sexual offense in comparison to all other males (over the age of 12). Within this latter group, sexual offence rates ranged from approximately 150-230 per 100,000 population, with peak offending rates occurring in 13 and 14 year old males at 221 and 230 per 100,000 population, respectively (Statistics Canada, 2002). Recognizing the scope of adolescent sexual offending has contributed to a renewed interest within the field.

Despite the substantial proportion of adolescent sexual offenders, relatively few studies have examined this population, their criminal and psychological profiles, or their risk to reoffend. Given the insufficient data describing this population, inferences about adolescent sexual offenders are often made based on the extensive knowledge that exists for adult sexual and nonsexual criminal offending groups. The lack of consideration for age-related developmental issues is, however, an important limitation of such inferences (Hunter & Becker, 1994).

Previous research regarding other criminal offending groups has centered on determining those psychological, social, and behavioural correlates and processes associated with criminal behaviour and whether these factors are related to further reoffending. Individual differences found amongst offenders suggest that they are not at equal risk to reoffend (Hanson, 2000). Identifying relevant risk factors for reoffending is a necessary first step in learning how to influence and ultimately, reduce the recidivism rate. Furthermore, such information allows for the development of tools that effectively combine risk factors to accurately predict recidivism. Assessing an offender's risk to reoffend using empirically-determined correlates is a guiding principle in general offender research and correctional applications (Andrews & Bonta, 2003; Bonta & Cormier, 1999; Gendreau, Goggin, & Cullen, 1999; Hanson & Bussière, 1998).

Over the past decade, researchers within the adult sexual offender field have made significant advancements towards understanding recidivism risk factors, and in the development of actuarial tools that predict sexual recidivism. Based on the considerable work of many researchers, involving numerous and some large-scale studies, there is now general agreement that adult sexual recidivism is related to deviant sexual interests and antisocial orientation or lifestyle (Hanson & Morton-Bourgon, 2004).

Although the literature describing adolescent sexual offending is limited, it is reasonable to assume that some of those same processes, experiences, and factors found within criminal offending will pertain to adolescent sexual offending. There is continuing debate within the adolescent literature regarding the extent to which general antisocial tendencies explain sexual offending. What is common to all offenders is that they are committing a crime, defined as an act that is prohibited by law and violates the rights of others. One line of research suggests that adolescent sexual offending is just another form of general delinquent (antisocial) behaviour (Ageton, 1983; Spaccarelli, Bowden, Coatsworth, & Kim, 1997). Another line suggests that sexual offenders are “specialists” and have unique attitudes, social-emotional and behavioural characteristics (Groth, 1977) or are motivated by paraphilic sexual interests (Becker, 1988b).

A major concern within the adolescent sexual offending literature is that there “has not been enough published research to develop, refine, and test actuarial tools to assess the risk of a reoffense” (Worling, 2003, p. 5). Presently, few tools exist that incorporate empirically-determined risk factors. Of those that do e.g., the Estimate of Risk of Adolescent Sexual Offense Recidivism Version 2.0 (ERASOR; Worling & Curwen, 2001) none have demonstrated predictive validity for sexual recidivism.

In the only known study that examined the predictive accuracy of four measures with adolescent sexual reoffending, including the ERASOR and the Youth Level of Service – Case Management Inventory (YLS-CMI; Hoge & Andrews, 1994), a measure of adolescent general criminal reoffending, none of the measures significantly predicted sexual recidivism (Morton, 2003). Both the ERASOR and the YLS-CMI were able to predict violent recidivism, which included sexual recidivism. It was suggested that these instruments picked up on those antisocial attitudes that are related to interpersonal violence. The ERASOR’s inability to predict sexual

recidivism was in part explained by how risk levels were determined. Evaluators do not use numerical scoring systems to determine risk level. Rather, they make judgements based on their knowledge of the scale items and their own clinical experience. Because the judgements may not have been representative of professionals who have extensive experience with the population and other limitations of the study, the author believed that the ERASOR's utility as an adequate measure of sexual recidivism had not yet been determined (Morton, 2003).

Given the current state of the literature, the objectives of this study were two-fold: (i) to examine and compare adolescent and nonsexual offender profiles in order to identify any differentiating characteristics, and (ii) to determine the predictive validity of two risk assessment tools, the ERASOR (using a different risk judgement method) and the YLS-CMI with these populations. By way of introduction, the existing literature in various related areas will be reviewed, including the psychology of criminal offending, risk assessment, adult sexual offending, followed by adolescent sexual offender characteristics and, finally, adolescent sexual recidivism prediction studies.

### *Criminal Offending Behaviour*

Many factors have been related to general criminal behaviour. Andrews and colleagues have outlined a model of criminal conduct that has taken into account social learning, social cognition, and cognitive-behavioural theories. They propound that criminal offending behaviour is a function of diverse risk factors that interact with and influence each other. Integrative, contextual and systemic perspectives have guided this work (Glueck & Glueck, 1950; Gottfredson & Gottfredson; 1979; Hirschi, 1969; LeBlanc, Ouimet, & Tremblay, 1988; Loeber & Dishion, 1983; Patterson, DeBaryshe, & Ramsay, 1989).

The psychology of criminal conduct (PCC; Andrews & Bonta, 2003) theory posits that the occurrence of criminal behaviour reflects the outcome of certain individuals being in a particular situation at a particular time. Personal factors, such as prior personal experiences, specific motivations or temptations, and personal self-controls, vary amongst individuals and can influence the situation and its outcome. Within any given situation, a crime occurs when a person has reasons to engage in the behaviour, and any objections to engagement are neutralized; the intention to behave in such a manner has been formed, and a personal choice is made. Furthermore, there is a belief of self-efficacy such that the person believes he or she can actually achieve the goal of behaviour. The situation itself is defined as one in which it is believed to be “okay” to behave in that manner (i.e., there is opportunity); and, finally, a cost-benefit balance suggests a shift in favour of the criminal behaviour.

Correlates of criminal behaviour have been established within PCC such that major and minor risk factors have been identified using empirical methods. Procriminal attitudes are considered to be a major risk factor of criminal behaviour. Certain personal values, beliefs, and interpretations of events lend to the cognitive support of crime. Associating with criminal offenders to the exclusion of non-criminal associates is a second major risk factor. Personality factors including weak socialization, impulsivity, aggressive disposition, poor problem-solving, and weak self-management skills constitute a third major risk factor. A history of antisocial behaviour from a young age, problems within the family of origin, unstable employment and schooling, problems with substance abuse, and problems with spending leisure time are other major risk factors. Minor risk factors include low personal and / or familial socioeconomic status, personal distress, including strain and alienation and, finally biological, and / or neuropsychological correlates.

*Adolescent general criminal offending.* The PCC model has been applied to the adolescent general criminal offender population. The theoretical framework has been supported by empirical tests of correlates of adolescent offending (Andrews, Hoge, & Leschied, 1992; Loeber & Stouthamer-Loeber, 1987). The predictive variables found within the model have been associated with the criminal behaviour of adolescents (Andrews et al., 1992; Hoge, Andrews, & Leschied, 1994; Loeber & Dishion, 1983; Loeber & Stouthamer-Loeber, 1987). From this broad range of personal and situational factors, instruments have been developed that identify age-appropriate criminogenic needs and help professionals assess and case manage the young offenders that they work with (Hoge & Andrews, 1996). The Youth Level of Service / Case Management Inventory (YLS-CMI; Hoge & Andrews, 1994) is an assessment tool developed for younger adolescents according to the risk / need principles of PCC and derived from the Level of Service Inventory (LSI-R; Andrews & Bonta, 1995).

*Risk / Need Principles.* The PCC model and derived instruments are used to predict level of risk and identify criminogenic needs that allow for the reduction of criminal behaviour (Andrews & Bonta, 2003). The model specifies four principles that guide effective intervention. If the goal of intervention is to decrease criminal behaviour, then criminogenic needs should be identified and targeted so that when they are influenced, they are associated with a reduced risk of recidivism. This is known as the *need* principle.

A second principle associated with the model is known as the *risk* principle. The risk principle states that the level of risk should be matched to treatment intensity. Those offenders who are at high risk of reoffending should receive increased service intervention in order to reduce the risk (Andrews et al., 1990). High-risk offenders respond better to more intensive service. Providing low-risk offenders with minimal service intervention has a two-fold benefit: it

conserves limited resources and it prevents an increase in the risk of reoffending (Andrews et al., 1990). The responsivity principle states that interventions should reflect the learning style of the offender in order to effectively target the needs. Finally, the principle of professional discretion allows for the final decision regarding risk to be left to professional judgement. These principles are commonly used to guide risk assessment within the criminal justice field.

### *Risk Assessment*

Risk assessment is important to the courts, police, correctional workers, treatment providers, and the general public, especially with respect to decision-making (Bonta, 1999). For those working specifically with sexual offenders, comprehensive assessments can provide information regarding their abilities, unique styles, and risk / need factors that allow service providers to make informed decisions regarding treatment needs, level of community supervision, sentencing / dispositions, and family reunification (Hanson, 2000; Worling, 2003).

Effective evaluations need to consider a range of risk factors, each of which have the potential to influence whether an offender reoffends or not. A single risk factor is insufficient to determine risk for reoffending. Rogers (1981) conducted a study based on her six-item risk scale for criminal behaviour demonstrating that with an increased number of risk factors present, there was a greater risk for reoffending. Reconvictions for offenders increased dramatically from 6 percent with 0 risk factors present to 94 percent with all 6 risk factors present.

*Static and dynamic risk factors.* All risk factors are not equal and there are important distinctions made between types of risk factors (Andrews & Bonta, 2003; Hanson & Bussière, 1998). The first distinction made is between static and dynamic variables. Static variables have been described as “tombstone” variables and are measures of personal history, defined by time and past events (Zamble & Quinsey, 1997). They can include a person’s age, gender, offence history,

use of weapons, or factors such as previous substance abuse. Static variables cannot be influenced or changed except by natural causes such as aging or receiving new charges. Despite being able to determine long-term recidivism potential or who should receive more intensive supervision (Hanson, 2000), such static information fails to provide any means or direction by which interventions could be implemented.

Dynamic factors provide information as to the mediation of reoffending and are potentially changeable over time (Andrews & Bonta, 2003; Zamble & Quinsey, 1997). Dynamic variables include relatively stable but still alterable patterns of behaviour such as values, attitudes (cognitions) and peer networks. If they are subject to treatment intervention or “targeted” appropriately, then the probability of further criminal activity is reduced. For example, holding the belief that it is okay to steal because others have stolen from you is a criminal attitude or criminal need that can lead to offending behaviour. If this attitude or belief is then changed or modified via intervention / treatment, the likelihood of further reoffending is lessened.

Dynamic risk factors have recently been categorized into stable and acute factors (Hanson & Harris, 1998). Criminogenic needs are also known as stable, dynamic risk factors, which are relatively enduring patterns of behaviour stable over long periods of time, such as months and years. Chronic alcoholism and personality disorders would be considered stable risk factors. Alternatively, acute dynamic factors are rapidly changing patterns of behaviour that last for short durations, days or even minutes. These could include binge drinking that leads to intoxication (but will eventually wear off), or rapid mood shifts, such as experiencing acute anger or rejection.

*Approaches to combining risk factors.* Once risk factors (of any type) have been determined to have some relationship with recidivism, they are combined to produce evaluations of risk. There are three general methods used to organize risk factors into overall evaluations: the

*clinical judgement* approach, the *empirically-guided* approach and the *actuarial* approach, all of which have shown varying degrees of success in predicting recidivism and have met with varying levels of acceptance.

The clinical judgement approach depends on evaluators using theory and their own experiences or familiarity with the population at hand. Risk factors are neither fixed, nor derived from empirical evaluations. In the unstructured clinical judgement approach, factors can change from case to case. If the approach is structured, the evaluator specifies beforehand those risk factors that will be considered. Research has indicated that the clinical judgement approach is inferior to other approaches when predicting recidivism (Grove & Meehl, 1996; Hanson & Morton-Bourgon, 2004).

The second method for combining risk factors is called the empirically-guided clinical assessment approach. The risk factors are fixed within this method and their inclusion tends to be based on a documented empirical relationship with sexual recidivism. The challenge inherent to the empirically-guided approach is how to combine the risk factors in order to determine an overall judgement of risk. There are no methods provided for scoring and the judgement of risk is left up to the evaluator. Hanson, Morton, and Harris (2003) have shown that the empirically-guided approach has higher accuracy than the clinical judgement approach, but lower predictive accuracy than the actuarial approach. The ERASOR is an example of an empirically-guided instrument that incorporates static and dynamic risk factors, designed specifically for adolescent sexual recidivism.

By comparison, the actuarial approach provides specific rules for combining risk factors into estimates of risk. Weights are given to the risk factors and then summed for a total score, which then translates into a probability of recidivism. Although the actuarial approach has many

advantages such as ease of scoring and validation, it also has drawbacks. The main concerns are that no scale can contain all possible risk factors and there is no room for “professional judgement or override”. In other words, the rules of the scoring method must be strictly adhered to, even in light of other mitigating or aggravating information, which may inform the level of risk.

Additionally, many of the current actuarial tools used for risk of sexual recidivism contain predominately static factors. Consequently, they do not provide any direction for intervention or treatment strategies (Hanson, 2000; Worling, 2003).

### *Adult Sexual Offending*

Measures that combine static and dynamic risk factors have a longer history within the general criminal offending literature. Only recently has the adult sexual offending field begun to incorporate dynamic risk factors into actuarial scales such as The Sex Offender Need Assessment Rating (SONAR; Hanson & Harris, 2000). There is a longer history of static risk scales including the Static-99 (Hanson & Thornton, 1999), the Sex Offender Risk Appraisal Guide (SORAG; Quinsey, Harris, Rice, & Cormier, 1998), and the Rapid Risk Assessment for Sex Offence Recidivism (RRASOR; Hanson, 1997). Such actuarial scales have recently demonstrated moderate to large predictive accuracy with adult sexual recidivism (Hanson & Morton-Bourgon, 2004).

These “static” actuarial scales have typically been developed by incorporating risk factors determined to be related to recidivism using follow-up studies. Such studies compare the recidivism rate of offenders with a specific characteristic, such as being adopted, to the rate of offenders without that characteristic. Follow-up studies have demonstrated that not all sexual offenders are going to reoffend. In general, it is difficult to determine recidivism rates, as many

sexual assault crimes are never detected or reported. Hence, all base rates tend to be low and are considered to be underestimates of the true rate of offending (Hanson et al., 2003).

It has been shown that approximately 10% to 15% of adult sexual offenders will commit another sexual crime within five years, approximately 20% will commit another crime within 10 to 20 years, and approximately 30-40% will commit another crime after 20 years have elapsed (Harris & Hanson, 2004; Hanson & Bussière, 1998; Hanson, Scott, & Steffy, 1995). It has been found though, that the longer an adult offender stays offence free in the community, the lower his risk for recidivism (Hanson et al., 2003) such that reoffending rates dropped from 14% in the first five years of follow-up to only 3% during years 15-20.

Among adolescent sexual offenders, recidivism rates are also low and tend to vary across studies. Worling and Långström (2003) have noted that rates vary between 0% and 30% within the literature, with average follow-up periods from as little to 6 months to just under 10 years. Although some studies also indicate that most adolescents will not continue to reoffend in adulthood (Moffitt, 1993; Schram, Milloy, & Rowe, 1992), others suggest that some adult sex offenders begin offending in their adolescent years, well before they are charged with adult sexual offences (Prentky & Knight, 1993; Worling & Curwen, 2000). Although it appears to be a small group, it is important to identify these adolescent reoffenders.

*Characteristics of adult sexual offenders.* Although adult sexual offenders display sexual reoffending even after 20 years have elapsed, it has been found that more of them are likely to reoffend with a nonsexual crime than a sexual crime, especially if they are rapists (Hanson & Bussière, 1998; Hanson & Morton – Bourgon, 2004). The sexual recidivism rate was determined to be 13% as compared to 36% for any recidivism in a large-scale meta-analysis by Hanson and Bussière (1998). Furthermore, the researchers found that 10% of child molesters reoffended and

22% of rapists reoffended with a nonsexual violent crime after an average 4-5 year follow-up. Results were similar in an updated meta-analysis (Hanson & Morton - Bourgon, 2004). It is important to consider then the general criminal characteristics of sexual offenders. Even for sexual offenders, recidivism that was nonsexual in nature was predicted by the factors that are specified in the psychology of criminal conduct model (Andrews & Bonta, 2003), including prior history of offending, personality traits, and criminal attitudes (Hanson & Bussière, 1998). In addition, the offenders who were at increased risk for reoffending were young and single.

Both meta-analyses demonstrated that antisocial orientation / lifestyle is predictive of sexual and nonsexual recidivism amongst adult sexual offenders (Hanson & Bussière, 1998; Hanson & Morton-Bourgon, 2004). Within the 1998 meta-analysis, the index of predictive accuracy used was the correlation coefficient or  $r$  (specifically, averaged adjusted  $r$ ). Both antisocial personality disorder and prior offences (nonsexual) were related to sexual recidivism with  $r = .14$  and  $r = .13$ , respectively. The updated meta-analysis (Hanson & Morton-Bourgon, 2004) found similar results. Using Cohen's  $d$  as the measure of association, antisocial orientation was the second strongest predictor of sexual recidivism ( $d = .23$ ). Given the impressive nature and size of both meta-analyses, examining close to 100 studies and approximately 30,000 sexual offenders each, the evidence is compelling and strongly suggests that adult sexual recidivists are antisocial in nature. However, sexual recidivists are characterized by more than just antisocial features such as aggressive personalities, impulsive behaviour, and reckless lifestyles. They also display deviant sexual interest.

The strongest predictors for sexual recidivism within both meta-analyses were those factors related to *deviant sexual interest* (Hanson & Bussière, 1998; Hanson & Morton-Bourgon, 2004). Predictors related to this construct included sexual preferences for children and boys, as

determined by phallometric assessments, a history of prior sexual offending, and an early onset of sexual offending. Phallometric assessment is a physiological measurement used to determine the level of physical arousal associated with various deviant sexual stimuli. It was originated by Kurt Freund (1965) and has a long history within the field of adult sex offending assessment and treatment. Using this procedure with adolescents is considered controversial, given the invasiveness of the procedure and the ethical concerns in creating the stimuli that offenders respond to (Hunter & Lexier, 1998; Worling & Curwen, 2001). Information regarding deviant sexual interest in adolescents is obtained through other methods including clinical interview, observation, psychological testing, and corroborative reports.

Although sexual and general criminal offenders share similar risk factors, it has been argued that “the risk factors for general recidivism are not identical to the risk factors for sexual recidivism” (Hanson, 2000, p.1). Sexual offending appears to be its own type of crime with its own specific set of risk factors (Hanson & Bussière, 1998; Hanson et al., 1995). Consequently, measuring sexual recidivism using only general criminal recidivism instruments is generally not advised (Hanson, 2000; Worling & Curwen, 2001). These scales have not generally demonstrated predictive validity with sexual recidivism (e.g., the Statistical Information on Recidivism – SIR; Bonta, Harman, Hann, & Cormier, 1996) or have not been tested in this manner (e.g., the LSI-R or Community Risk / Need scale). In an early study, the SIR demonstrated good predictive validity with general ( $r = .41$ ) and violent recidivism ( $r = .34$ ), but weaker prediction ability with sexual recidivism ( $r = .09$ ) (Bonta & Hanson, 1995). Subsequent research, however, has found that the SIR was able to predict sexual recidivism (Hanson & Mourton-Bourgon, 2004;  $d = .77$ , without one study, or  $d = .52$ , with all 4 studies). The authors

indicated that this was possible given the common risk marker of antisocial orientation (Hanson & Morton-Bourgon, 2004).

*Incorporating dynamic risk factors into sexual recidivism scales.* Hanson and Harris (1998) used the 1998 meta-analysis and their own study to identify many factors related to sexual reoffending. These factors were generally static, such as age of offender and offence history, but also included stable dynamic factors such as personality disorders and sexual preferences and acute dynamic factors, such as mood changes and intoxication. As a result, they produced the SONAR, an adult sexual recidivism measurement that incorporates not only stable dynamic but acute dynamic risk factors.

Hanson and Harris (2000) included five stable factors and four acute factors based on the most recent research findings in sex offender recidivism. The first stable dynamic factor was attitudes tolerant of sexual offending. There is some evidence, albeit inconsistent, that deviant sexual attitudes are common among child molesters (Hanson, Gizzarelli, & Scott, 1994; Hartley, 1998; Ward, Fon, Hudson, & McCormack, 1998). Such deviant attitudes include sexual play between adults and children as acceptable, not harmful, or demonstrative of love. Social support was a second factor included in the SONAR. Hanson and Scott (1996) have demonstrated that sex offenders are likely to have friends and relatives who are also sexual offenders, thus suggesting social support for sexual offending behaviour. Intimacy deficits, sexual self-regulation, and general self-regulation are the other three stable factors within the SONAR. Intimacy deficits as related to sexual offending are supported within the literature (Marshall, 1993; Seidman, Marshall, Hudson, & Robertson, 1994) and include unsatisfactory intimate relationships, lack of empathy for women (Hanson, 2003), and an increased number of noncommitted sexual relationships (Malamuth, 1998). Problems with sexual self-regulation refers to a sex offender's

perception that he has very strong sexual impulses that must be acted upon, signaling a sense of entitlement (Hanson et al., 1994). Sex is overvalued and sexual activity is considered to increase social status. It has also been shown that sexual offenders are more likely to engage in deviant sexual fantasies following stressful events (McKibben, Proulx, & Lusignan, 1994; Proulx, McKibben, & Lusignan, 1996). Overall poor self-regulation is considered common amongst offenders (Gottfredson & Hirshi, 1990). They tend to engage in addictive behaviours including substance and alcohol abuse, and in a pattern of irresponsible behaviour, such as quitting school early, multiple short-term sexual relationships, and multiple jobs. Sexual offenders tend to demonstrate overall poor behavioural controls that can directly contribute to impulsive sexual offending (Hanson & Harris, 2000).

The four acute risk factors on the SONAR include negative mood, substance abuse, anger, and opportunity for victim access, and are significant as they were directly linked to the offence, either by directly preceding, or occurring during the offence itself (Hanson & Harris, 1998). Overall, the SONAR demonstrated moderate ability to differentiate between recidivists and nonrecidivists (Hanson & Harris, 2000;  $r = .43$  and ROC area of .74). It incorporated dynamic risk factors into an adult sexual recidivism scale in a significant manner for the first time. Although generalizability or replication on other samples has not been established, such work is underway.

Those working with adult sex offenders have access to various actuarial tools that have been studied empirically and shown to predict sexual recidivism with moderate to large predictive accuracy (Hanson & Morton-Bourgon, 2004). Although these scales incorporate largely static risk factors, research continues to progress in this area, thus enabling the development of

instruments such as the SONAR and advancing the understanding of adult sexual recidivism and our ability to predict it.

Adolescent sexual offender research has not progressed correspondingly and, as such, the current research base does not support the validation of actuarial tools for this population. The adolescent sexual offender field has not established the same scientific knowledge base necessary to combine risk factors into a validated actuarial sexual recidivism scale. Research is progressing in this area, however, and two risk-assessment tools that incorporate empirically supported risk factors have been developed: the Juvenile Sex Offender Protocol (J-SOAP; Prentky, Harris, Frizzell, & Righthand, 2000) and the ERASOR (Worling & Curwen, 2001). Neither instrument has shown predictive validity with adolescent sexual offending thus far. In order to develop a valid assessment tool, further refinement and data collection is necessary (Prentky et al., 2000). The adolescent field is still in the process of ascertaining those factors that have a demonstrated relationship with sexual recidivism. With the advancement of knowledge, new risk factors that demonstrate a relationship with recidivism will be added to assessment tools, whereas those risk factors that do not show a relationship will no longer be incorporated in assessment tools (Worling & Curwen, 2001).

Currently then, there are two structured risk scales developed for the adolescent sexual offender population and neither of them has demonstrated predictive accuracy with sexual recidivism. However, in the initial stages of development, "simply identifying risk factors is a significant advance" (Hanson, 2000, p.5). Let us now turn our attention to looking more specifically at the factors that characteristicize adolescent sexual offending and/or demonstrate a relationship with adolescent sexual recidivism.

### Adolescent Sexual Offender Research

In order to identify those risk factors relevant to adolescent sexual assault recidivism, it is first necessary to understand those processes that are implicated in adolescent sexual offending. One of the methods by which to identify developmental risk factors is to examine how adolescent sexual offenders differ from other offenders, for whom those processes have already been determined. A central question of this current study is whether adolescent sexual offenders have similar characteristics to nonsexual offenders or whether they can be differentiated from one another. It is now generally agreed that adult sexual reoffenders are similar to adult general offenders in that they are both characterized by an antisocial orientation, but that sex offenders also have the unique attribute of deviant sexual interest, which differentiates them from nonsexual offenders (Hanson & Morton-Bourgon, 2004). The literature cannot support such claims with respect to adolescent sexual offenders. Historically, adolescent sexual offenders were thought to have their own unique characteristics, needs, and motivations, in comparison to most other adolescents in general. Groth (1977) characterized adolescent sexual offenders as very needy and lacking in most adaptive skills:

Typically, the juvenile sexual offender tended to be a loner with little skill in negotiating emotionally intimate peer relationships to members of either sex. He tended to be an underachiever who has few outlets for personal expression. His low self-esteem coupled with a diffuse and insecure sense of sexual identity resulted in deep-seated feelings of inadequacy and a general mood state of anger, depression, and emptiness. As a result, his functioning and the development of skills and abilities to handle life demands are undermined and the resulting stress prompts his offence. (p. 253)

Other studies have suggested that, in fact, adolescent sexual offenders often display the less deviant or dysfunctional personality than other types of adolescent offenders (Awad, Sanders, & Levene, 1984; Oliver, Hall, & Neuhaus, 1993; Zgourides, Monto, & Harris, 1997).

In keeping with the adult literature, Becker (1988b) has suggested that some adolescent sexual offenders are motivated by “paraphilic” sexual interests (recurrent sexual urges / fantasies for deviant stimuli), whereas others offend as a result of their general antisocial tendencies. Currently, a principal focus within the literature is the extent to which antisocial tendencies explain adolescent sexual aggression (Seto & Lalumière, in press). There are a limited number of theoretical models that explain adolescent sexual offending, most of which emphasize general delinquency or conduct problems (Ageton, 1983; Hunter, Figueredo, Malamuth, & Becker, 2003; Knight & Sims-Knight, 2003).

#### *Theoretical Model of Adolescent Sexual Offending*

Ageton (1983) was one of the first and only to provide a model of adolescent sexual offending that incorporates much of the PCC (Andrews & Bonta, 2003) framework, including the need for procriminal attitudes and the neutralization of prosocial ones. The model integrates social-learning, social-control, and strain theories to account for general delinquent behaviour. Youth who do not adopt or adhere to the conventional social order may attach to peers who provide a social forum in which antisocial or delinquent bonds are further learned or reinforced within. Exposure to such peers could also provide the forum in which displays of sexual prowess and sexual aggression are rewarded and are seen as valued attributes. Youths who oversubscribed to the male domination role including adopting “rape-myth” attitudes, such as believing women are inferior and subservient, were additional variables thought to be relevant in adolescent sexual offending in this model.

In an attempt to validate the model, Ageton (1983) compared a group of predominately adolescent rapists to a group of nonoffenders to see if the two groups could be differentiated on the model variables. Results indicated that demographically, sexual-assault offenders were identical to nonoffenders with the exception that offenders came from families that experienced significantly more crises including divorce and extended unemployment. Offenders were also found to be more estranged from their parents than nonoffenders, as well as less attached to school settings. Four variables correctly classified 77% of the adolescents that sexually reoffended: Involvement with Delinquent Peers, Assaultive Behaviour, Attitudes Toward Rape and Sexual Assault, and Family Normlessness. In a subsequent analysis, only delinquency variables were included, which revealed that one variable, Involvement with Delinquent Peers, correctly classified 76% of the cases, such that sexual assault variables offered little improvement to the accuracy of the classification over that achieved with this one variable from the delinquency model. Sexual offenders also reported more involvement in all types of delinquent behaviour, such that the sexual assault offenders fit a general delinquent profile in much the same way as adolescents who commit other nonsexual types of offences. Ageton (1983) concluded that “sexual assault offenders appear to be adolescents who are not well integrated into the conventional social order, especially school, and are strongly bonded to delinquent peers” (p. 138). The author further noted that the subject comparisons made may only differentiate offenders from nonoffenders.

Others have provided further support to Ageton’s (1983) findings that adolescent sexual offenders are primarily delinquent in orientation and hence difficult to distinguish from delinquents with no known history of sexual assault. Comparisons were made between 50 adolescents with sexual offending behaviour and 106 adolescents with violent nonsexual offending behaviour. The

groups did not display significant differences on any measured variable, including exposure to violence, attitudes, coping, and competency (Spaccarelli, Bowden, Coatsworth, & Kim, 1997).

A recent meta-analytical study examined the contribution of antisocial tendencies to adolescent sexual offending in a much more comprehensive manner. Twenty-four studies were included that represented 1,652 sexual offenders and 8,148 nonsexual offenders. General results indicated that although adolescent sexual offenders had substantial histories of conduct problems (aggression, deceit, school behavioural problems, destruction of property, rule violation), they typically scored lower in these areas than nonsexual offenders (Seto & Lalumière, in press).

#### *Factors Related to Adolescent Sexual and Nonsexual Offending*

In order to better understand the relevance of antisocial tendencies in adolescent sexual offending, the relationship between the major risk factors of PCC (Andrews & Bonta, 2003) and adolescent sex offenders and nonsexual offenders will be examined. Major risk factors include antisocial attitudes, antisocial personality, antisocial associates, problematic family and educational histories, prior offending, and substance abuse. This will serve to identify those factors that can potentially differentiate these two offender groups.

*Antisocial orientation.* Adolescents with an antisocial interpersonal orientation are concerned with meeting their own needs at the expense of the needs and feelings of others. They demonstrate antisocial sentiments and are nonconforming to societal rules, conventions, and laws. A complex factor, antisocial orientation encompasses attitudes and behaviour, and some personality style. General antisocial attitudes can include procriminal values (a belief that it is better to maintain an anticonventional lifestyle), antiauthority values (a belief that one has to be against the “system” and society, and little regard for others (a belief that victims are to blame, or get what they deserve)). There is extensive research that correlates antisocial orientation/attitudes

with adult general offending, as well as juvenile offending behaviour. In the landmark meta-analytical study using 168 studies and over 1,700 Pearson correlations, Gendreau, Andrews, Goggin and Chanteloupe (1992) demonstrated a .22 correlation coefficient between the risk/need factor of antisocial attitudes and criminal recidivism. Antisocial orientation/attitudes is consistently one of the strongest risk predictors for juvenile recidivism. Simourd and Andrews (1994) found a correlation coefficient of .48 between the factor and juvenile recidivism.

Spaccarelli et al. (1997) examined attitudes of both violent nonsexual offenders and sexual offenders. Comparisons did not yield any differences between groups on measures including coping and attitudes supportive of using sexual aggression. Both groups that engaged in violent offending, sexual or nonsexual, endorsed the same types of attitudes that supported the use of physical aggression. The authors concluded that generalized antisocial attitudes increased the risk for any type of aggression, whether it was sexual or nonsexual in nature.

Worling and Långström (2003) reported that adolescent sexual offenders who display antisocial orientation/attitudes may be at higher risk for further sexual offences, and nonsexual offences. In general, juvenile sexual offenders have typically been characterized as high in general delinquency and antisociality (Ageton, 1983; Awad & Saunders, 1991; Awad et al., 1984; Fehrenbach, Smith, Monastersky, & Deisher, 1986; Spaccarelli et al., 1997). A study by Awad and Saunders (1989) suggested that adolescent sexual offenders who offended against younger children, and had a history of antisocial behaviour, also had more problems with school adjustment, more experiences with physical and sexual abuse, and increased emotional problems, as compared to those without a history of antisocial behaviour.

France and Hudson (1993) indicated that approximately 50 percent of adolescent sexual offenders have a history of nonsexual arrests and antisocial behaviour. Youths with more serious

sexual offences had more extensive histories of nonsexual offending and were similar to other juvenile delinquents with respect to their history of conduct problems (Jacobs, Kennedy, & Meyer, 1997).

Butler and Seto (2002) compared two types of adolescent offenders and found that sexual offenders did not differ from nonsexual offenders with respect to early childhood conduct problems or current behavioural adjustment. Sexual offenders were also found to have just as many antisocial values and beliefs as nonsexual offenders (Butler & Seto, 2002), as measured on a scale that assesses attitudes towards police, law, courts; identification with criminal peers; and tolerance for delinquent acts.

In a large-scale longitudinal study, Elliott (1994) analyzed self-reported data from over 1,700 males. It was determined that rape typically occurred after an increasingly serious history of antisocial behaviour; nonviolent and then violent crime.

It would appear then that antisocial orientation/attitudes is an important factor in adolescent sexual offending and nonsexual offending and most likely will not differentiate the two groups. However, an examination of attitudes or cognitions that are antisocial, but specific to sexual interest (e.g., attitudes supportive of sexual offending, sexual fantasy/preoccupations) may demarcate the two populations.

*Sexual offending attitudes.* It stands to reason that attitudes supportive of sexual offending behaviour will increase the likelihood of the criminal behaviour occurring. Antisocial attitudes tend to encompass many possible self-statements that allow a person in the correct opportunity to offend sexually or nonsexually. There are two general categories of attitudes that may be implicated in sexual offending, including general antisocial attitudes, and attitudes that support the use of sexual offending.

There is some evidence, albeit rare, that attitudes supportive of sexual offending facilitate the occurrence of the behaviour. Kahn and Chambers (1991) undertook a two-year longitudinal study of adolescent sexual offenders using a mean of twenty-months as the follow-up period. Few variables were found to have a significant relationship with sexual reoffending. It was found, however, that those sexual offenders who blamed their victims for the sexual offence and used verbal threats during the commission of the offence had somewhat higher rates of sexual reoffending.

*Rape myth attitudes.* Although sexual offenders may endorse specific sexual offending attitudes, Zgourides et al. (1997) determined that they did not endorse so-called "rape myth" attitudes associated with sexual aggression, rape, or homosexuality. In comparisons between 80 adolescent sexual offenders and 96 nonsexual offenders, it was found that more nonsexual offenders endorsed rape myth attitudes than did sexual offenders. For example, 52 percent of nonsexual offenders compared to 33 percent of sexual offenders believed that when a girl says "no" to sex, she actually wants sex. Thirty-four percent of nonsexual offenders and only 14 percent of sexual offenders endorsed the attitude that girls who wear sexy clothes are asking for sex. In addition, sexual offenders did not endorse rigid, societal views such as homosexuality being wrong or amoral, nor did they oppose the attitude that "no means no". Overall, the sexual offender group did not hold different norms regarding sexual morality than nonoffenders; however, it was found that the sexual offenders were less likely to be constrained by those norms.

*Deviant interests/fantasy.* It has been suggested that sexual fantasies play a role in adolescent sexual offending (Daleiden, Kaufman, Hilliben, & O'Neil, 1998) and may act as a rehearsal for the actual offence (Becker & Hunter, 1997). Although sexual fantasy is an intuitive

area of research, understanding its role in abnormal adolescent sexual behaviour is complicated by the fact that it is prevalent within 95% of the general population (Leitenberg & Henning, 1995).

Daleiden et al. (1998) conducted a retrospective self-report study to determine the role of sexual fantasy for sexual offenders as compared to nonsexual offenders and nonoffending male undergraduates. Adolescent sexual offenders reported more paraphilic interest (e.g., exposing one's genitals, voyeurism). Both offender groups reported fewer nondeviant fantasies than the university males but, contrary to expectations, they did not report higher levels of deviant fantasy. The authors suggested that the suppression of nondeviant fantasy may contribute to sexual offending or that the incarcerated group did not have the insight necessary to report it. Younger sexual offenders were found to have experienced more typical (nondeviant) but nonconsenting (i.e., no sexual partner) sexual experiences compared to nonsexual offenders and nonoffenders. It is unknown how well a variable such as deviant interest/fantasy can differentiate between sexual offenders and nonsexual offenders. All adolescent males may experience some form of deviant sexual interest or fantasy, but this does not mean that all of them will act upon it. Those who do act on deviant sexual interests/cognitions are then defined by the behaviour, and labeled adolescent sexual offenders. It is suggested, however, that adolescents who do offend sexually and have deviant sexual interest are at increased risk for *reoffending* (Worling & Långström, 2003). Deviant sexual attitudes and interests is a promising area of research and may differentiate the two offender groups; however, further investigation is needed.

*Personality functioning.* Adolescent antisocial orientation is comprised of two broad categories: attitudes that can be procriminal, antiauthority, or victim blaming in nature and some personality features such as aggressiveness, inflated esteem, resentment, poor coping, and

impulsiveness. Of the limited research that does exist, it would appear that few differences exist between sexual and nonsexual offenders with respect to personality traits.

In a study by Carpenter, Peed, and Eastman (1995) comparing adolescent rapists and child molesters on a well-validated personality assessment, rapists displayed elevated levels of narcissism, and both groups displayed somewhat elevated levels on the antisocial and histrionic scales. Child molesters, in comparison, displayed elevation on avoidant and dependent personality scales. Although they did not make direct comparisons to nonsexual offenders, the authors concluded that rapists tend to possess an inflated self-image and are arrogant and may be more antisocial in general, given the number of prior nonsexual offences they engaged in (Carpenter et al., 1995).

Hastings, Anderson, and Hemphill (1997) reported that adolescent sexual offenders typically did not differ from nonsexual offenders in terms of their ability to cope or deal with stress, levels of anxiety, and cognitive distortions. Both groups, however, were different from the nonoffender group with respect to these traits, in that nonoffenders displayed less problems in dealing with stress and had lowered anxiety levels.

In a study that examined specific personality traits of empathy and self-esteem, Monto, Zgourides, and Harris (1998) did not find differences between adolescent sexual offenders and nonsexual offenders on a general measure of empathy. A possible explanation for this finding was that the conceptualization of empathy was ambiguous or not well-defined. Consequently, using the empathy construct within risk prediction or treatment protocols may be of limited use (Monto et al., 1998).

Valliant and Bergeron (1997) also showed that sexual and nonsexual offenders did not differ on measures of antisocial sentiments, paranoia, or thought disturbances. However, sexual

offenders were shown to be more assaultive, more socially introverted, and more resentful. The stability of these results is questioned because the sample size was extremely small, comparing 16 sexual offenders to 13 nonsexual offenders.

Although there is substantial evidence that links impulsivity with general adolescent offending (Loeber & Farrington, 1998; Loeber & Stouthamer-Loeber, 1986), and self-regulation difficulty is a promising dynamic adult risk factor (Hanson & Harris, 1998), there is minimal research regarding this risk factor within the adolescent sexual offender field. Katz (1990) compared adolescent child molesters to other sexual offenders and found that poor impulse control, in addition to conduct problems, was associated with some forms of sexual offending. The child molesters were more socially incompetent and, as a result, socially isolated. The child molesters were also more socially incompetent than the nonsexual offenders, one of the few personality traits that has differentiated these two groups.

*Antisocial associates.* In addition to antisocial attitudes and personality, association with antisocial or delinquent peers is considered a major risk factor in general juvenile offending (Andrew & Bonta, 2004; Simourd & Andrews, 1994). Among general criminal populations, the number of criminal companions is one of the strongest predictors of recidivism (Gendreau, Little & Goggin, 1996).

Hanson and Scott (1996) suggested a possible link between adult sexual offending and criminal associates as sexual offenders are likely to have friends or family members who are also sexual offenders. The nature of such an association has yet to be determined.

In her adolescent sexual offending study, Ageton (1983) found that sexual offenders and nonoffenders were differentiated by the variable Involvement with Delinquent Peers. It is unknown whether sexual offenders and nonsexual offenders would also be discriminated by this

variable. Further research is needed to understand the relationship between adolescent sexual offending and criminal/negative peers.

*Family functioning.* Family is possibly the most influential social environment in which to learn prosocial or antisocial behaviours. There is a great deal of evidence to suggest that exposure to an adverse family environment leads to many life consequences, including criminal behaviour. According to Bandura and Walters (1963), the family may provide reinforcement for, or encourage socially inappropriate behaviours. Simourd and Andrews (1994) found a .20 correlation between the construct of poor parent-child relations and adolescent general offending. Hanson and Morton-Bourgon (2004) speculated that negative family background may be an instrumental characteristic, in addition to sexual deviancy and lifestyle instability, of persistent sexual offenders. Their results, however, found little or no relationship between family functioning and sexual recidivism among (largely) adult offenders. In order to examine family functioning with respect to adolescent sexual offending, this section will be divided into two sections: parenting correlates and family environment.

*Parenting correlates.* Graves, Openshaw, Ascione, and Eriksen (1996) examined parenting characteristics and related demographic variables including parental substance abuse histories, criminal histories, and parental interactional styles within adolescent sexual offender families. Adolescent child molesters came from families in which the parenting-interactional style was described as pathological with extremes noted in chaotic/rigid styles and disengaged/enmeshed styles. These families were regarded as extremely stressed.

Pithers, Gray, Busconi, and Houchens (1998) also examined demographic variables and functioning styles of parents / caregivers of younger children (aged 6 to 12) with early sexual behaviour problems that were equivalent to criminal violations if adults were to commit them.

Fifty-three percent of children witnessed violence within their homes. The families were considered to be highly distressed and somewhat isolated. Parents showed insecure attachments with children and were found to be more rejecting of children, sometimes displayed as disappointment with the children. The authors made the connection that an absence of familial attachment could create vulnerability in children to become involved with antisocial peers and antisocial behaviour, as they developed through adolescence. In particular, when maternal attachments are weak, there may be increased risk for problematic sexual acting out behaviour that can potentially develop into adolescent sexual offending (Pithers et al., 1998).

In a separate study, researchers found that poor parent-child relations that included negative and rejecting attitudes toward the child, low warmth and nurturance, minimal parental involvement, and harsh discipline were found to be related to adolescent violence that included sexual recidivism (Lipsey & Derzon, 1998).

*Family environment.* Burton, Nesmith, and Badten (1997) adapted social learning theory (Bandura, 1977) to explain child and adolescent sexually aggressive behaviour. They suggested that youth could intentionally or indirectly become positively reinforced for using age-inappropriate sexual behaviour based on their environmental conditions. Environmental effects on the youth could include number of parents, parental status, violence, substance abuse or criminality in the home, and sexually abused family members. Cognitive or personal factors included the youth's perception of the behaviour, whether they considered it normal or not, and factors that could affect their cognitions with respect to the sexually aggressive behaviour. It was proposed that a youth's likelihood of being sexually aggressive is positively correlated with the child's own sexual abuse and the degree to which sexual aggression is perceived as normal and/or rewarding. Children and adolescents who were more sexually aggressive tended to come from

environments with more substance abuse and sexual abuse within the home. Younger children, under the age of six, were more likely to perceive their sexually aggressive behaviour as normal than adolescents. The authors concluded that social learning theory via the family environment was an instrumental factor in the development of sexually aggressive behaviour in youths (Burton et al., 1997).

Further research also indicates that past abuses and prior exposure to violence, abuse, neglect, and overall family dysfunction appear to be highest amongst the families of children who sexually act out (Gray, Busconi, Houchens & Pithers, 1997). Identifying and understanding the early experiences of youth (e.g., adverse family environments, neglect, abuse, and dysfunctional parenting influences) provides insight into the developmental factors that may lead to sexually offensive behaviour for older children. Sexual offenders appear to experience adverse parenting and family environments, from a young age, that include pathological interactions between family members, severe distress, maltreatment and exposure to negative role modeling that can potentially influence and develop into adolescent sexual offending behaviour.

*Educational functioning.* Many researchers have indicated that adolescent sexual offenders may have some school-related problems including academic difficulties; however, sexual offenders rarely differ from nonsexual offenders on such variables (Fehrenbach et al., 1986; Jacobs et al., 1997; Kahn & Chambers, 1991; McCurry et al., 1998). Kahn and Chambers (1991) determined that 39 percent of a group of adolescent sexual offenders had a learning disability, 53 percent displayed disruptive behaviours at school, and 30 percent were truant. In a study of adult male sexual offenders, Langevin, Marentette, and Rosati (1996) found that 53 percent of 162 subjects had experienced learning difficulties during childhood. A study by O'Brien (1991)

indicated, however, that 32 percent of adolescent sexual offenders were described as above average in academic performance.

Jacobs et al. (1997) compared adolescent sexual offenders with nonsexual offenders on measures of academic achievement and intelligence. Academic achievement did not discriminate between the two groups. Both groups approached below average ability in reading, spelling and arithmetic subtests, and did not differ significantly on these measures. Awad and Saunders (1989) found that 59 percent of a small group of sexual offenders (child molesters) had Average intelligence (IQ range of 90 to 109), 24 percent had Low Average intelligence (IQ range of 80-90), and 10 percent were considered to have Borderline intelligence (IQ range of 70 to 79). Verbal IQ was found to be significantly lower than Performance IQ, which is the same profile that nonsexual offenders tended to display.

Awad and Saunders (1991) found in a second study, however, that subgroups of sexual offenders displayed some differences in intellectual performance. Sexual offenders who assaulted peers or older persons had significantly lower IQs than those who assaulted children and nonsexual offenders. Although those offenders who assaulted peers had Verbal IQs similar to child molesters, their Performance IQ was significantly less than child molesters and nonsexual offenders. Overall, however, all three groups had a history of chronic academic and behavioural problems.

*Substance abuse.* In their review of adolescent sexual offenders, Davis and Leitenberg (1987) reported that to date there was no data to indicate that this population was more likely to have drug and alcohol abuse problems than other offender populations. Intoxication at the time of offence was considered rare and uncommon (Fehrenbach et al., 1986; Groth, 1977) and found in less than 10 percent of adolescent sexual crimes. Lightfoot and Barbaree (1993) reported,

however, that intoxication rates at the time of offence ranged between 3.4 and 72 percent. Miner and Crimmins (1995) reported that substance abuse histories of adolescent sexual offenders were very similar to nonoffenders and adolescent nonsexual (violent) offenders.

*Leisure/recreation.* Although poor use of leisure time, not having personal interests, or not knowing how to spend free time appropriately is a major risk factor for general offending (Andrews & Bonta, 2003), this factor has never been researched in relation to adolescent sexual offending. Worling and Curwen (2001) have included an item on the ERASOR entitled “environment supporting an opportunity to reoffend”. It could be theorized that those offenders who have environmental opportunities for sexual reoffending, such as easy victim access, in conjunction with not having other prosocial interests to fill the time, are at greater risk for recidivism; however, this has never been investigated.

*Prior offending.* Prior offending has a strong association with general adolescent reoffending (Andrews & Bonta, 2003), and with adult sexual reoffending (Hanson & Bussière, 1998; Hanson & Morton-Bourgon, 2004). Långström (2002) found that prior sexual offences and nonsexual offences were related to adolescent sexual recidivism, whereas Schram et al. (1992) determined that receiving at least one prior sexual conviction was related to sexual reoffending. Although this particular factor may be important for future reoffending, it is not necessarily a factor that serves to differentiate between offender profiles.

#### *Other Variables Associated with Sexual Offending*

All of the major risk factors associated with PCC theory (Andrews & Bonta, 2003) have been examined in relation to adolescent offender profiles. There are a few static variables not defined as major risk factors within PCC that deserve brief mention as their relationship with sexual offending is potentially important.

*Use of force.* Over half of a large sample of adolescent sex offenders used force to persuade or subdue the victim (Kahn & Lafond, 1988). Johnson (1988) also found that coercion was extremely common such that 83 percent of abusive boys used it; however, 60 percent of the coercion was considered to be verbal threats or bribes. In a study by Butz and Spaccarelli (1999), adolescent sexual offenders were grouped according to whether they ever used physical force or threats of force during the commission of a sexual assault. Those who did use force were considered to be rapists and were found to demonstrate significantly more sexual assault fantasies and predatory behaviours. Knight and Prentky (1993) reported that adolescents who target same-aged peers and older persons tend to use more force than those who victimize younger children, although this could be related to a practical need to subdue older victims, and the definitions of sexual crimes. Regardless, examining functional static factors may provide insight into attitudinal and personality differences between different offenders.

*Past abuse.* The role of past sexual and/or physical abuse is complicated with respect to adolescent sexual offending. There appears to be no consistent relationship with sexual offending and past childhood sexual abuse. Researchers have found that anywhere from 0 to 95 percent of adolescent sexual offenders have experienced sexual abuse at some point in their lives (Awad & Saunders, 1989; Becker & Hunter, 1997; Gray et al. 1997; Haapasalo & Kankkonen, 1997).

There has been evidence to suggest that adolescent sexual offenders have experienced higher rates of physical abuse than adolescent nonsexual offenders (Becker & Hunter, 1997). However, when comparing adolescent sexual offenders with violent nonsexual offenders, the two groups tended to experience similar physical abuse histories (Haapasalo & Kankkonen, 1997; Knight & Prentky, 1993).

There has been little evidence to suggest that adolescents who were sexually abused are at greater risk for further reoffending (Hagan & Cho, 1996; Worling & Curwen, 2000). Within the adult sexual offending literature, there has been no evidence that a relationship exists between sexual offence recidivism and an offender's history of sexual victimization (Hanson & Bussière, 1998). Hanson and Slater (1988) indicated that although adult sex offenders may have more sexual abuse in their backgrounds than nonoffenders, sex offenders do not display a significantly greater history of sexual abuse than other clinical populations. They concluded that sexual abuse may increase the likelihood of problems in general, rather than act as a necessary risk factor for sexual offending.

#### *Prediction of Recidivism*

The preceding section examined the relationship between the major risk factors implicated in adolescent general offending (Andrews & Bonta, 2003) and adolescent sexual offending. This was to assist in determining the relative contribution of antisocial tendencies in adolescent sexual offending, and determine those factors that can potentially differentiate sexual and nonsexual adolescent offenders. A central question addressed in this study is whether a group of factors can differentiate adolescents who engage in sexual crime from those who engage in nonsexual crime. The next step then, is to identify which, if any, of the distinguishing markers can actually identify offenders and predict who will go on to reoffend. Prediction studies will be highlighted within this section rather than individual risk factors. However, brief consideration is given to antisocial orientation, deviant sexual arousal, and treatment.

Few researchers have examined risk prediction in relation to adolescent sexual reoffending within their studies. Results are limited by very low base rates, most often explained by short follow-up periods. Worling and Långström (2003) have reported that recidivism rates:

vary considerably in the literature, from 0% to more than 30%, and it appears that the data are often a function of the length of follow-up period, the measurement of recidivism, the impact of clinical intervention, and the nature of the population under investigation. (p. 342)

Most prediction studies examining adolescent sexual offenders, of which there are very few, have only examined relatively short follow-up periods in order to determine recidivism rates for this population. Worling and Curwen (2000) stated that, of the published reports on adolescent sexual recidivism, no investigation used a mean follow-up period greater than four years and the majority of studies had a mean follow-up period that was less than three years. Of the sexual recidivism rates reported on within these studies (Brannon & Troyer, 1995; Bremner, 1992; Hagan & Cho, 1996; Kahn & Chambers, 1991; Lab, Shields, & Schondel, 1993; Smith & Monastersky, 1986) all were found to be below 15 percent. Using a longer follow-up period may result in increased base rates of sexual reoffending and a means by which to determine those factors that predict reoffending.

Prentky, Harris, Frizzell, and Righthand (2000) were unable to draw conclusions from a study that examined the predictive validity of a risk assessment tool with adolescent sexual offenders. Based on a sample of 96 offenders, there were only 3 sexual recidivists out of a total of 8 recidivists. The authors reported that an adequate demonstration of the predictive validity of this procedure would require a larger sample - or at least a higher risk sample. One of the reasons cited for such a small group of recidivists was the short follow-up: 12 months. Although preliminary analyses were encouraging, an extraordinarily low base rate of 3 percent recidivism prevented any meaningful examination of predictive validity. Although the low base rate could be attributable to treatment, the authors argued it was better explained by the very brief, 12-month

follow-up period. One year is considered inadequate to capture any population's recidivism aggregate (Prentky et al., 2000).

Rasmussen (1999) conducted a study of adolescent sexual offending using a five-year follow-up period and was able to draw conclusions. Examining 170 first time adolescent sexual offenders, the author used Event History Analysis, incorporating Cox regression, considered a popular model for examining recidivism (Allison, 1984). Variables hypothesized to be associated with reoffending included offence characteristics, child abuse history, and clinical intervention. Within the 5-year follow-up period, there was a sexual recidivism rate of 14% ( $N = 24$ ). It was also found that more than half of the group (59 percent) had committed a nonsexual offence. Adolescent sexual offenders who had a greater number of prior nonsexual offences were more likely were more likely to reoffend nonsexually, suggesting an antisocial element for adolescent sexual reoffenders.

#### *Relevant Recidivism Risk Factors*

*Antisocial features.* Although the importance of antisocial tendencies in relation to general reoffending (Andrews & Bonta, 2004; Gendreau et al., 1992; Lipsey & Derzon, 1998), adult sexual recidivism (Hanson & Bussière, 1998; Hanson & Morton-Bourgon, 2004) and even adolescent sexual offending (France & Hudson, 1993; Seto & Lalumière, in press) has been demonstrated quite convincingly, the empirical support for such an association with adolescent sexual recidivism is lacking (Worling & Curwen, 2001; Worling & Långström, 2003). Worling and Curwen (2000) examined sexual recidivism, violent nonsexual recidivism, and nonviolent recidivism for a group of treated and untreated sexual offenders. Nonsexual recidivism was significantly higher than sexual recidivism for both treated and untreated groups (21 and 50 percent, respectively). Antisocial features as measured by the California Psychological Inventory

were not found to be predictive of adolescent sexual recidivism. The authors suggested that sexual recidivism is predicted by unique factors related to sexual offending, rather than nonsexual offending factors (Worling & Curwen, 2000). Långström and Grann (2000) were unable to show an association between Psychopathy Checklist – Revised (PCL-R; Hare, 1990) scores and sexual recidivism. Psychopathy is a disorder that includes significant antisocial features. The meta-analysis conducted by Seto and Lalumière (in press) indicated that adolescent sexual offenders had high levels of conduct problems; however, they did not specifically examine sexual recidivism. Further research is needed to further delineate the relationship between antisocial orientation and adolescent sexual recidivism.

*Deviant sexual arousal.* Deviant sexual arousal in comparison to antisocial features holds perhaps an even more prominent position within the sexual recidivism literature. It is one of the strongest predictors of adult sexual recidivism (Hanson & Bussière, 1998; Hanson & Morton-Bourgon, 2004). It is also one of the most consistently supported predictors associated with adolescent sexual recidivism. Findings have been consistent that sexual interest in children or sexual violence significantly increases the risk of reoffending (Kenny, Keogh, & Seidler, 2001; Schram et al., 1992; Worling & Curwen, 2000).

*Treatment.* Treatment efficacy within the adult sexual offending literature continues to be debated and much has been written on the matter, some of which supports the use of treatment in lowering the risk to sexually, and nonsexually reoffend (Hanson et al., 2002).

Those adolescent sexual offenders who experience treatment are expected to be less likely to recommit further offences if the treatment is shown to be comprehensive, complete, and targets specific sexual offence factors (Borduin, Henggeler, Blaske, & Stein, 1990; Worling & Curwen, 2000, 2001). Worling and Curwen (1998) examined treatment outcomes and risk prediction

factors. The subsequent recidivism rate for a group of untreated adolescent sexual offenders was found to be 3.6 times higher than for the group of sexual offenders that was treated. The treated group of adolescent sexual offenders was found to have a 5 percent rate of reoffending as compared to the untreated group that had a sexual reoffending rate of 18 percent. Others have demonstrated that those sexual offenders who are the most unwilling to engage in specific treatment are at higher risk for recidivism (Steen & Monnette, 1989).

*Static risk predictors.* In general, static risk factors are more reliable than dynamic risk factors in the prediction of adolescent sexual recidivism. It was found that sexually offending against two victims increased the risk for adolescents to be reconvicted for a sexual crime (Långström & Grann, 2000; Worling & Curwen, 2000). Worling and Curwen (2000) did not find a correlation between total victims and risk of reoffending, but rather, offenders with two or more victims were more likely to reoffend. Långström and Grann (2000) found that after a follow-up of five years, adolescent sexual offenders with two or more victims were also significantly more likely to be reconvicted for a sexual crime.

The type of victim chosen may have some bearing on offender profiles. Although the literature is mixed, there is some evidence to suggest that sexually assaulting children, males or strangers may increase the chance of adolescent sexual recidivism (Worling & Långström, 2003).

*Unrelated risk factors.* Worling and Curwen (2000) also determined those factors that did not appear to be related to sexual recidivism. There was a negligible relationship found between sexual recidivism and victim preference such as victim age, gender or relationship to the offender, in contrast to the adult literature. Possibly, victim preferences may not be formed at this age and, therefore, are not predictive of future reoffending for adolescents and young adults.

Based on comprehensive reviews of the literature, certain variables consistently do not

demonstrate an empirical relationship with adolescent sexual recidivism including childhood abuse, denying the offence, and lack of victim empathy (Worling & Curwen, 2001; Worling & Långström, 2003).

### *Adolescent Risk Scales*

Although various risk factors have a demonstrated relationship with adolescent sexual recidivism, no scale has demonstrated predictive validity for adolescent sexual recidivism, to date. Adolescent sexual offender research has not progressed correspondingly with the adult sexual offending literature and, as a result, actuarial tools have not yet been developed for this population. Clinicians have generally relied on checklists that include risk factors deemed to be related to risk through clinical experience and observation (Hunter & Lexier, 1998; Worling & Curwen, 2001). Many checklists or outlined guidelines exist (Epps, 1997; Perry & Orchard, 1992; Ross & Loss, 1991; Steen & Monnette, 1989) that have been based on clinical judgement, with little or no empirical basis. Recently, however, an interest to develop actuarial tools for adolescent sexual offenders has emerged.

Two empirically-based measures have been designed to assess adolescent sexual recidivism. The Juvenile Sex Offender Protocol (J-SOAP, Prentky, Harris, Frizzell, & Righthand, 2000) is a 23-item risk measure that derives factors from the literature. The authors intentionally included mostly historical items related to general juvenile delinquency, in addition to specific sexual offense markers (Prentky et al., 2000) and reported a high correlation of .91 between the J-SOAP and the YLS-CMI, a measure of adolescent general criminal recidivism. Predictive validity was not demonstrated using the instrument, as there were too few sexual reoffenders (3 out of 96) and statistical comparisons between sexual recidivists and nonrecidivists could not be made.

Despite the limited sample size, few recidivists had, as predicted, sexual preoccupations and deviant cognitions (Prentky et al., 2000).

In comparison to the J-SOAP, the ERASOR (Worling & Curwen, 2001) was designed to assist evaluators in assessing dynamic variables that could be targeted in specialized treatment for adolescents and their families (Worling, 2003). The ERASOR is an adolescent sexual recidivism scale made up of 25 risk factors. Many of these factors were selected because they have a demonstrated empirical relationship with sexual recidivism in the known scientific literature. Other risk factors are believed to have a “potential” relationship with recidivism. The main limitation of this approach is that there are no fixed rules to determine risk probability and the judgement of risk is based on clinical opinion (Hanson, 2000). Worling (2003) showed preliminary support for the predictive utility of the ERASOR, using prior adult sanctions as the indicator of sexual recidivism. However, Morton (2003) was unable to determine predictive ability for adolescent sexual recidivism with the ERASOR, in the only known study of its kind, citing the lack of use of professional judgement of risk as a possible limitation to this endeavour. Within that same study, a measure of adolescent general criminal offending, the YLS-CMI (Hoge & Andrews, 1994) was also not predictive of sexual recidivism (Morton, 2003). However, both the ERASOR and YLS-CMI demonstrated an ability to predict violent recidivism that included sexual recidivism. The author suggested that the two instruments picked up on the antisocial tendencies of the adolescent and that such factors (interpersonal aggression and antisocial orientation) are important predictors of future interpersonal violence including sexual aggression (Morton, 2003).

### *Summary and Purpose of Study*

There is a current need to conduct further research within the area of adolescent sexual offending, given that adolescents are responsible for approximately 20% of all sexual assaults within North America (Federal Bureau of Investigation, 1993; Statistics Canada, 1997) and that our understanding of the population is lacking, especially in comparison to the adult sexual offending population. There is general agreement within the adult sexual offender research that two broad factors, deviant sexual interests and antisocial orientation / lifestyle are related to sexual recidivism (Hanson & Bussière, 1998; Hanson & Morton-Bourgon, 2004; Quinsey, Lalumière, Rice & Harris, 1995). Such information has allowed for the development of actuarial risk assessment tools that show predictive accuracy within the moderate to large ranges (Hanson & Morton-Bourgon, 2004). These instruments tend to use static information, which does not provide guidance for intervention to ultimately influence reoffending patterns; however, work is underway to incorporate dynamic (stable and acute) factors into risk assessment tools.

Currently, the adolescent sexual offender research is expanding. There is still a need to determine those risk factors that demonstrate consistent predictive ability with recidivism. Certain themes are emerging. Antisocial orientation/tendencies do appear to be important for adolescent sexual offending. Seto and Lalumière (in press) reported that although nonsexual offenders displayed more of these characteristics, adolescent sexual offenders also demonstrated significant antisocial features.

The first purpose of this study was to contribute to the identification of factors related to adolescent sexual offending by comparing sexual and nonsexual offenders. The PCC model (Andrews & Bonta, 2003) outlines major and minor risk factors that are empirically related to general criminal offending. A review of these factors in relation to adolescent sexual offenders

suggests general criminal offending features are characteristic of this population; however, evidence also suggests there are processes unique to sexual offending. The current study compared adolescent sexual and nonsexual offenders in order to differentiate the two groups and identify those factors that uniquely characterize sexual offenders. Sexual and nonsexual offenders were compared on two measures; the ERASOR, which is intended for adolescent sexual offenders and the YLS-CMI, which is intended for adolescent general offenders, and other pertinent factors not included in either of these measures.

Based on the previous review, the following hypotheses were offered:

- 1) Adolescent sexual and nonsexual offenders will be differentiated from one another using two measures.
- 2) Sexual offenders will specifically be differentiated from nonsexual offenders by having more deviant sexual attitudes / interests and by experiencing greater family dysfunction and more social isolation.
- 3) It is not expected that sexual and nonsexual offenders will differ on abuse histories, school histories or antisocial orientation (attitudes and personality features).
- 4) Sexual offenders will be characterized by higher ERASOR scores and nonsexual offenders will be characterized by higher YLS-CMI scores.

The second purpose of this study emerged naturally from the first. If adolescent sexual offenders could be differentiated from nonsexual offenders, could those distinct features be related to sexual recidivism? A recidivism study was conducted using the same measures, the ERASOR and the YLS-CMI. Morton (2003) was only able to display predictive accuracy for these two measures for violent, including sexual recidivism. This study attempted to determine the

predictive validity of the ERASOR and the YLS-CMI by adjusting for limitations of the previous study and recognizing the prominence of antisocial tendencies.

- 1) ERASOR and YLS-CMI high risk-scores will be predictive of future sexual, violent nonsexual, nonviolent, and any recidivism; however, in combination, the ERASOR will demonstrate stronger sexual recidivism prediction and the YLS-CMI will demonstrate stronger nonsexual recidivism prediction.
- 2) Risk factors including antisocial orientation and deviant sexual interests will be predictive of sexual recidivism.
- 3) General antisocial orientation will be predictive of nonsexual recidivism.
- 4) Static variables such as two victims or offending against children will place offenders at greater risk for sexual recidivism.

## Method

### *Overview*

Archival data were collected from files kept on clients referred to the Durham Family Court Clinic (DFCC). Files are kept at the DFCC in Oshawa, Ontario and extend back to 1986. DFCC is a not-for-profit centre that provides clinical services for children, youth, and their families who generally have involvement in the legal system. Referrals for DFCC are primarily made by Probation Services in the Durham Region. The Community Service Team is a community based, multidisciplinary service focused on reducing recidivism and enhancing the ability of the youth to function more effectively in the community. The CST provides clinical services to high-risk young offenders that include sexual offenders, and general offenders (assault, property crimes).

Durham region is a large catchment area, located east of Toronto. Approximately 700 youth are on probation in Durham region every year and approximately 100 are referred to the DFCC. Only those offenders who are considered high-risk, and have a court-order for treatment should be referred to DFCC. Probation officers judge risk level, usually based on YLS-CMI. Officers are encouraged to exhaust other community / agency services for youth, prior to referring to DFCC. In some ways, DFCC is considered a last resort for young offenders.

As of 2004, there are hundreds of cases on file (not all open), some of which, however, exist only within the computer database. Many archived physical files (from before 1993) were destroyed, or partially destroyed, in an effort to dispose of old young offender records. As a result, only those physical case files that included all, or most of the following, psychosocial assessments, psychiatric assessments, predisposition reports, CST intake referral forms - parts I and II (Appendix I) and provided substantial demographic, criminal, and psychosocial information were considered for inclusion. There were approximately 300 case files containing sufficient information available for use. Background and identifying variables were coded for using this information and included the following: offender characteristics (age, school background), family characteristics (parental status, residence, SES), offence characteristics (index crime, victim profile) and abuse history (early behaviour by the offender, or abuse sustained by the offender).

#### *Procedure*

The first part of this study incorporated case file information to complete data collection for identifying background variables, five scales or 25 factors on the ERASOR, and eight scales or 42 factors, and Other Needs and Special Consideration items on the YLS-CMI. Coding was completed for adolescent sexual and nonsexual offenders according to defined items on both instruments. Information obtained from case files (regarding background variables, ERASOR and

YLS-CMI items) was taken at the time of the index offence; the reason the offender is referred to the DFCC and the point in time at which many of the assessments are conducted. For example, coding decisions regarding whom the offender was living with were determined at the time the offence occurred. This was similar for all items, even those expected to occur after the index offence, such as receiving treatment. That is, receiving treatment was coded for if the offender had already received treatment prior to the index offence, and not after the index offence had occurred. Data were coded by the author and inter-rater reliability of coding was corroborated by a psychology doctoral candidate for approximately 20% of the participants.

A series of descriptive and comparative statistics were performed to determine the differences between sexual and nonsexual offenders based on the background variables, the ERASOR items, and the YLS-CMI items. Percentage differences, chi-square, and F-statistics were obtained. Logistic regression was performed to further determine differences between sexual and nonsexual offenders and predict group membership. Although similar to multiple regression in design, it is generally used when one wants to predict a dichotomous dependent variable. For example, whether an offender commits sexual or nonsexual crimes could be the categorical variable. It works by fitting a logistic function to the 1s and 0s, estimating the fitted probability associated with each observed value (Norman & Streiner, 2000). Based on a linear combination of variables, logistic regression predicts the likelihood of being in one group or another e.g., whether someone is more likely to be a sexual offender or nonsexual offender, based on the variables. The goal of analysis is to correctly predict the category of the outcome for individual cases. If a relationship between the outcome and set of predictors can be established, the model is then simplified by eliminating some predictors while still maintaining strong prediction (Tabachnick & Fidell, 2001).

The latter part of the proposal examined the predictive validity of two instruments, separately and in combination, and individual predictors of sexual and nonsexual recidivism. Follow-up periods ranged from 3 months (after index offence) to just over 14 years. The average follow-up period was 47.29 months (SD = 41.15 months). Descriptive and comparative statistics including percentage differences, correlations, ROC curves, and survival analyses were conducted to determine which variables were predictive of adolescent sexual and nonsexual reoffending. In order to use survival analyses or event history analyses, a base rate of approximately 15 percent sexual recidivism is advantageous. A recidivism base rate of 35% was obtained over the 14-year follow-up period.

Survival analysis determines the amount of time it takes for something to happen, such as how long it will take an offender to recidivate (if the offender does). One of the goals of analysis is to determine those factors associated with survival (no reoffending), or conversely, the offender's failure (further offending). Receiver operating curves (ROC curves) were also employed in the recidivism analyses. An ROC curve value can be interpreted as the probability that a randomly selected reoffender will have a higher score than someone who did not reoffend (Rice & Harris, 1995). Cox regression was also conducted to determine those factors that influence time to reoffending.

Recidivism data were gathered through the Canadian Police Information Centre (CPIC) up to December 2002. CPIC data provides a complete list of charges and/or convictions for an offender; however, it does not provide the specifics of the offence such as victim characteristics. The CPIC database is a national registry that contains both youth and adult criminal arrests and convictions as maintained by the Royal Canadian Mounted Police. Permission to use CPIC must be established and a judiciary official such as a Youth Court judge can grant permission.

Permission was sought and granted through the Ontario Court of Justice – Central East, on May 6<sup>th</sup>, 2003 (see Appendix II)

Although criminal convictions are often used as a measure of recidivism, others (Worling & Curwen, 1998, 2000) argue that criminal charges are a more accurate reflection of criminal reoffending for adolescents. Although some offenders may be wrongfully accused, many victims of sexual assault never report their abuse, thus, seriously underestimating the actual level of reoffending (Mathews, 1997). Therefore, rearrest rates or criminal charges were used as the measure of recidivism. New charges include those incurred for sexual, nonsexual violent, and nonviolent offences. The principal investigator was blind to recidivism data until all other coding was completed.

### *Participants*

Subjects were 220 male adolescent phase I offenders from the DFCC. They were between the ages of 12 and 19 years of age ( $M = 14.21$ ,  $SD = 1.42$ ). Although the age cutoff for phase I offenders is 15, DFCC has continued to assess and treat clients past the age of 15, and they continue to be supervised by phase I probation officers.

*Sexual offenders.* Of the DFCC case files that included sufficient information, approximately 120 were for clients who had sexual offending behaviour present. Clients with exhibitionist behaviour were excluded, as this is not considered a crime of interpersonal violence and different criminogenic needs may be involved.

Subjects included 110 male adolescents with primary referrals of sexual offending behaviour, as determined by past or current charges/behaviour. Charges included offences that involved physical contact such as Sexual Assault (level 1), Sexual Assault with a weapon, threats, or causing bodily harm (level 2), Aggravated Sexual Assault (level 3), Sexual Interference, and

Invitation to Sexual Touching. Other charges applicable to this population included Incest, and Anal Intercourse. Of the sexual offenders, 92 received actual charges that were sexual in nature. Eighteen sexual offenders did not have sexual charges laid against them, but were included in this group. These offenders were identified by their sexually offending behaviour, for which charges were reduced from sexual assault to assault (general). This can be the case for many young offenders according to Worling & Curwen (1998); however, probation officers can still refer these adolescents for the sexual offending behaviour.

*Nonsexual offenders.* Of the DFCC case files that included sufficient information, approximately 180 contained clients that had only nonsexual offences. Clients who had prior or current sexual offending behaviour were excluded. Final selection was based on assessment information found within the case file, the more complete, the greater the likelihood of its inclusion. Archival data were collected and coded for a comparison group of 110 nonsexual offenders, including both violent and nonviolent offences. Charges or dispositions could be for nonsexual violent offences, which are defined as any offence that involves actual or threatened physical harm to another such as Assault (levels 1,2,3), Robbery, Forcible Confinement, and Uttering Threats. Nonviolent offences included Theft, Break and Enter, Mischief, Breach of Probation Order, Escaping Lawful Custody, Possession of a Weapon, Trafficking in Narcotics, Driving While Impaired, and Causing a Disturbance.

Of the nonsexual offenders, 69 offenders had a violent crime as their main offence and 41 had a nonviolent crime as their main offence (no violent criminal offending). Fifty-five offenders received charges /dispositions for crimes that were violent in nature, forty-one received charges /dispositions that were nonviolent and fourteen received a combination of violent and nonviolent charges. None of the nonsexual offenders had prior sexual charges.

*Victims.* Coding of information included determining those offenders who offended against children, and those who offended against peers and older. If an offender was at least four years older than the victim, and the victim was under the age of 12 at the time of offence, the offence was categorized as one against a child. Other studies have used a five-year difference between offender and victim as the cut-off. Using a four-year difference and a condition that the victim was under 12 ensures a biological, psychological, and emotional difference between offender and victim (Smith, Monastersky, & Deisher, 1987; Worling, 2000).

Those offending against peers and older were defined as being no more than two years older than the victim. The majority of the crimes, if there was more than one, determined whether an offender was categorized as primarily offending against peers or primarily offending against children.

### *Measures*

*Background variables.* There were various variables that were included and coded for, not defined by either instrument. Family socioeconomic status (SES) was determined using the established category ratings of the Durham Family Court Clinic (DFCC). High, medium, and low SES, as well as social assistance were coded for by DFCC at intake for each individual. Two parents / guardians working in professional positions were rated as high SES. Medium SES was defined as one professional parent or two parents working in labour or clerical type positions. Low SES was defined as one parent working in a labour or clerical position. DFCC documented whether families were receiving social assistance, which was recorded within the present study.

Physical abuse, sexual abuse, and neglect were coded for using all available information. Abuse and/or neglect had to be documented within a psychosocial assessment, or a psychological/psychiatric assessment. If the abuse or neglect was described within one or more of

the reports, it was considered valid and beyond mere speculation. If it was only checked off in the CST intake, without corroboration from other reports or any description, it was not considered to be valid and the abuse variables were not marked as present. This was similar for two (sexual and nonsexual) early acting out behaviour variables.

Early acting out behaviour by the offender was defined as a serious and persistent use of aggressive behaviour (verbal, physical, sexual) that was directed towards others and occurred before the offender turned age 12. Such behaviour would have lead to various consequences for the offender (no charges) e.g., adult sanctions, suspensions, detentions, specialized educational or community programs for the behaviour, although specialized treatment for the problem behaviour was not necessary to mark the variable as present. The conditions for documentation were the same as for the abuse variables such that a check mark of the variable was not sufficient to indicate the variable was present. Rather, documentation of the behaviour via an assessment report, preferably more than one, a description of the behaviour, and ensuing consequences was necessary.

*ERASOR*. The Estimate of Risk of Adolescent Sexual Offense Recidivism – Version 2.0 (ERASOR, Worling & Curwen, 2001) is a relatively new risk assessment designed to assess 12 – 18 year old adolescent sexual offender's risk of sexually reoffending. A copy of the ERASOR as used for coding purposes within this study can be found in Appendix III.

The ERASOR is an empirically-guided risk measure that provides evaluators with a list of variables that are associated with adolescent sexual recidivism within the literature. Research from the adolescent and adult sexual offender literature, as well as clinical experience has been employed to create the list of 25 risk factors. The 25 items on the ERASOR comprise five scales:

Sexual Interests, Attitudes, and Behaviours; Historical Sexual Assaults / Characteristics; Psychosocial Functioning; Family/Environmental Functioning; and Treatment.

*ERASOR coding.* According to the ERASOR protocol, items should be scored as present, partially present, absent, or unknown. For the purposes of this study, each item was coded dichotomously, as either present or absent, 1 or 0, and risk factors were added together for a total score out of 25.

Although nonsexual offenders were not scored (coded for) on the ERASOR, available data regarding nonoffenders' sexual attitudes were recorded. Nonsexual offenders could not be scored on the ERASOR, as it is intended for sexual offenders, who commit sexual crimes. Additionally, very few nonsexual offenders had information pertaining to their sexual histories in the case files. Nonsexual offenders are not routinely assessed for deviant sexual interests, obsessive sexual fantasies or masturbatory practices; however, it was found within this study, that 72 of 110 nonsexual offenders were assessed (in a limited capacity) for deviant sexual interests. Of this group, the majority tended to display "rape myth" or sexist attitudes. For example, many of the nonsexual offenders were noted to feel females deserved to be sexually assaulted if they dressed provocatively, or believed that females were weaker or subservient to males and should sexually meet a male's needs.

*ERASOR scoring and risk categories.* Currently, there is no specific algorithm used to combine risk factors and predict recidivism with the ERASOR. Rather, it is anticipated that a general relationship exists between the number of high-risk factors such that more high-risk indicators suggest increased risk (Worling & Curwen, 2001). Low, moderate and high-risk categories were determined statistically.

Using SYSTAT, version 10 (SYSTAT Software Inc, Richmond, CA), tree-based modeling was performed using recidivism as the dependent variable and the ERASOR total score as the independent variable to determine if any important breakpoints within the range of ERASOR scores existed to differentiate groups by likelihood of recidivism. Tree-based modeling, also known as classification and regression-tree analysis, uses tree pruning and cross-validation to generate results. The procedure for tree growing is known as binary recursive partitioning or repeated partitioning of the dataset into subgroups. In this process, the data are subdivided into significantly differing cells. The process continues until further partitioning is impossible (i.e., no further splits can be found that significantly improve the homogeneity (i.e., decrease diversity) within the subgroups and a minimum subgroup size is reached (e.g., 5 cases). An important advantage of CART lies in its ability to automatically search for important relationships and uncover hidden structure in highly complex data.

Tree-based modeling using recidivism as the dependent variable and the ERASOR measure as the independent variable revealed one important breakpoint. The proportion of reoffenders was 3.3% among those with ERASOR scores less than 14 ( $N = 30$ ) and the proportion of reoffenders was 47.5% among those with ERASOR scores that were 14 or higher ( $N = 80$ ). This information was used together with Kaplan-Meier statistics to determine ranges of ERASOR scores to assess for differences in recidivism. Based on Kaplan-Meier log ranks, three risk groups were determined. The largest significant differences between groups of sexual recidivists ( $\chi^2(2, N = 110) = 14.33, p < .001$ ) occurred for those who scored in a range between 0 and 14 (considered a low-risk group), between 15 and 19 (considered a moderate-risk group) and between 20 and 25 (considered a high-risk group).

*ERASOR psychometric properties.* There is some preliminary psychometric data available for the ERASOR. Inter-rater reliability was measured using 103 adolescents (Worling, 2003). Intra-class correlations (ICC) for items ranged from .55 to .96. Risk factors such as Recent Escalation in Anger or Negative Affect and Problematic Parent-Offender relationships had ICCs below .60. An ICC of .91 was measured for the overall risk rating.

Morton (2003) obtained additional psychometric data on the ERASOR. Cronbach's alpha for the ERASOR total score was .74. Internal consistency for each scale was as follows: Sexual Interests, Attitudes, and Behaviours scale displayed an alpha of .60, Historical Sexual Assaults/Characteristics had an alpha of .58, Psychosocial Functioning scale had an alpha of .65, and Family/Environmental scale had an alpha of .52. Internal consistency was not determined for the Treatment scale. With respect to inter-rater reliability, percent agreement ranged from 22 to 100 percent. Eight items had agreement below seventy-five percent. The ERASOR was determined to be significantly correlated with the YLS-CMI.

*YLS-CMI.* The Youth Level of Service/Case Management Inventory (YLS-CMI, Hoge & Andrews, 1994) provides information about risk factors and attributes of offenders and their situations relevant to the level of supervision required or level of risk the offender poses. The instrument derives from Andrews and colleagues' general theory of Psychology of Criminal Conduct (PCC) and the Level of Service Inventory (Andrews & Bonta, 1995), which was developed to assess the risk and need levels in adult correctional systems. A copy of the YLS-CMI can be found in Appendix IV.

Psychometric data collection is ongoing for the YLS-CMI (Hoge & Andrews, 1996). Reliability and validity data have been determined for seven of the eight subscales. The first subscale, prior and current offences, was not coded. Initial results indicate that the coefficient

alpha or internal consistency values for the subscales were 0.62 for substance use, 0.65 for personality/behaviour, 0.67 for attitudes/orientation, 0.68 for leisure/recreation, 0.69 for education/employment, 0.73 for peer relations and 0.76 for family/parenting. Overall full-scale coefficient alpha was 0.72.

A criterion validity assessment measured the risk principle and indicated that, as expected, scores for the YLS-CMI increased linearly with increasingly more serious dispositions. A second test of criterion validity indicated that all seven subscales correlated significantly with two reoffending measures; any reoffending and new convictions. Risk/need scores were correlated with the outcomes, such that higher levels of risk and need were associated with lower levels of adjustment. A multiple regression analyses revealed that significant prediction of any reoffending or new convictions included attitudes and parenting circumstances with R-square values of .21 and .09, respectively (Hoge & Andrews, 1996).

*Variables.* As identified on the YLS-CMI, part I includes an assessment of risks and needs that is divided into eight categories.

- 1) Prior and Current Offences/Dispositions. Five areas are examined including number of prior convictions, failures to comply, prior probation, prior custody, and number of current convictions.
- 2) Family Circumstances/Parenting. Six areas are examined including inadequate supervision, poor control over behaviour, inconsistent parenting, inappropriate discipline, and poor parental-child relationships.
- 3) Education/Employment. Seven areas are examined including classroom and schoolyard behaviour, low achievement, poor peer and teacher relations, and truancy.
- 4) Peer Relations. Four areas are examined that include delinquent and positive peer influences.

- 5) Substance Abuse. Five areas are examined that include frequency and severity of drug and alcohol use.
- 6) Leisure/Recreation. Three areas are examined that include ability and motivation to make positive use of free time.
- 7) Personality/Behaviour. Seven areas are examined including self-esteem, poor frustration tolerance, guilt, short attention span, tantrums, physical, and verbal aggression.
- 8) Attitudes/Orientation. Five areas are examined including antisocial attitudes, reluctance to get help, denial of problems, defiant attitude, and callousness towards others.

Part II of the YLS-CMI is an assessment of other needs and special considerations of both family and youth. The family section includes ten factors related to the parents specifically that were not included in the risk and need assessment section. Areas of assessment include parental problems such as history of substance abuse, financial problems, cultural problems, uncooperative parents, marital conflict, psychiatric history, and significant trauma, such as death or illness in the family.

The Youth section includes 26 other special considerations, not already addressed on the YLS-CMI. These factors include health problems, learning problems, victim of sexual or physical abuse or neglect, shy/withdrawn, racist attitudes, history of psychiatric problems, and information about assaultive behaviour.

The YLS-CMI is scored according to Intake Manual and Item Scoring Key (Hoge & Andrews, 1994). The summary of risk / needs factors is scored by looking at each category separately and scoring related items with a 1 or 0. The totals from the eight categories are tallied and given a risk level rating. An overall risk level is recorded such that 0-8 represents low risk, 9-26 represents moderate risk, 27 – 34 represents high risk, and 35 – 42 represents very high risk. The assessment of other needs and special considerations is neither scored nor categorized as a

risk level. Rather, this section represents variables that while not always directly related to criminal activity, do constitute factors that may be relevant to decisions made about the client. The variables are just checked off as being present or not present and used in case management decisions.

Although the DFCC began the practice of having the YLS-CMI completed by Probation Services on each client, this was only initiated at a much later date. Consequently, only 22 clients were found to have the YLS-CMI completed within the case file. Essentially, all YLS-CMI forms were coded or recoded according to case file data, by this author. The current study used the YLS-CMI scoring key to determine overall risk level.

### Results

A description of identifying variables (taken at the time of offence) including offender characteristics, family background, and offence information are provided first. Test and scale characteristics are examined next. Thereafter, comparisons between sexual and nonsexual offenders are made, based on the YLS-CMI assessment measure. Finally, statistics focussing on the prediction of recidivism are provided. Means and standard deviations are provided for continuous variables, whereas chi-square ( $\chi^2$ ) and percentages are reported for dichotomous variables.

#### *Identifying characteristics*

Identifying characteristics for sexual and nonsexual offenders are provided in Table 1. Descriptive statistics are based on 220 offenders overall, evenly divided between sexual and nonsexual offenders. Overall *N*s may be less where indicated as a result of missing data.

Mean age for sexual and nonsexual offenders was similar at 14.13 and 14.26 years, respectively. Family and residential circumstances were also similarly distributed for the two

groups. The majority of sexual and nonsexual (88% and 91%, respectively) offenders lived at home at the time of offence. There were no significant differences in distributions across parental status. Almost one-third of all offenders lived with both biological parents at the time of offence. Approximately 50% of all offenders lived with either a single parent or a parent and a step-parent. Approximately 15% of sexual and nonsexual offenders lived with either adoptive parents, family other than parents, or were in the care of the Children's Aid Society (CAS). The majority of families fell within the low SES category.

At the time of offence, sexual offenders had a higher average grade achieved (7.83) than nonsexual offenders (7.50). More sexual offenders (75%) than nonsexual offenders (59%) were attending school at the time of offence. Of those attending school, 37% of sexual offenders were in a regular classroom. Twenty-three percent were attending a specialized behavioural classroom, called Section 19 / 20 / 27 and 40% were receiving special resources for learning disorders. According to adjusted residuals, significantly more nonsexual offenders (46%) were attending the behavioural classroom and significantly less (26%) were attending special resource classrooms.

Educational identifications were distributed in a manner that paralleled significantly more behavioural problems for nonsexual offenders and more learning problems for sexual offenders. Overall, sexual offenders had fewer educational identifications than nonsexual offenders. Although sexual offenders tended to have more learning disorders, nonsexual offenders had many as well, usually in combination with behavioural identifications. Approximately 36% of nonsexual offenders had both a learning and behavioural educational identification as compared to 18% of sexual offenders. Sexual offenders, in general, were more often designated with low intellectual functioning as compared to nonsexual offenders.

*Sexual offenders.* Descriptive information regarding the offence(s) and reoffences committed by sexual and nonsexual offenders can be found in Table 2. Of 220 offenders, 110 committed crimes which had at least one sexual offence that included physical contact, or was “hands-on” in nature. Although adolescents may have committed exposure offences in addition to others, if that was their only offence, they were excluded from the analyses. Of the sexual offenders, almost half committed other nonsexual crimes in addition to their sexual crimes (these could be separate and unrelated incidents such as robbery followed by a sexual assault, or in combination with the sexual offences e.g., forcible confinement and sexual assault). Fifty-seven sexual offenders committed only sexual offences. Of all the sexual offenders, only 5.4% had prior sexual charges, whereas 33% had prior nonsexual charges. The majority of sexual offenders had either one or two victims and chose a child victim (less than age 12 and at least 4 years younger than the offender).

In terms of the relationship offenders had to victims, 28% of sexual offenders offended only against family members (siblings, cousins, nephews, nieces, etc, including half- and step-siblings). Forty-eight percent of offenders offended only against non-familial members, such as friends or strangers. Twenty-four percent offended against a mixture of both family and non-family members.

*Reoffending.* Of the sexual offenders, 68 or 62% committed a crime subsequent to the index offence, whereas 42 did not go on to reoffend within the time frame. Of the 68 reoffenders, 57% reoffended with a sexual crime (for 110 sexual offenders, the sexual recidivism rate was 35%). If the offender had no further sexual charges, violent nonsexual crimes were examined for which 17% of the 68 committed at least one. As a point of interest, 35% of sexual offenders went

on to offend 1 to 21 times after the reoffence (separate convictions) and 27% of them received adult convictions.

It was found that 41% of sexual offenders displayed early sexualized behaviour, serious enough to be documented in a court file and significantly more than nonsexual offenders. In addition, more than half of sexual offenders had a history (prior to age 12) of nonsexual acting out, which could include bullying behaviour, aggressiveness, threatening behaviour, or any form of serious physical behaviour. Thirty-nine percent of offenders had been sexually abused at some point in their lives, twice as many as the nonsexual offenders.

*Nonsexual Offenders.* Of 220 offenders, 110 committed nonsexual offences. Of 110 nonsexual offenders, 63% committed violent crimes which as its name implies involved a victim or some form of interpersonal aggression. None of the nonsexual offenders had prior sexual charges; however, 55% had at least one prior nonsexual charge. Of the nonsexual offenders, 80% went on to recommit another nonsexual crime. More than half received convictions as adults. The majority of offenders had one or two victims and tended to choose a same-aged peer or older as a victim.

As for prior behaviour, only 3.6% of all nonsexual offenders displayed any early sexualized behaviour (before age 12), which was significantly less than the sexual offenders. However, 69% displayed early nonsexual acting-out behaviour, similar to sexual offenders. Eighteen percent were documented as being sexually abused, significantly less than sexual offenders while 42% were documented as being physically abused.

### *Reliability*

Inter-rater reliability was examined for 16% ( $N = 34$ ) of the sample. Inter-rater reliability was analyzed by calculating the percentage agreement between the two raters on each item for the

ERASOR assessment items and the mean scores and standard deviation for the YLS-CMI scales. For dichotomous variables, kappa was determined. A kappa found above .75 indicates excellent agreement between raters, beyond chance, whereas kappas between .40 and .75 indicate fair to good agreement and kappas found below .40 indicate poor agreement between raters (Banerjee, Capozzoli, McSweeney, & Sinha, 1999). Intra-class correlations (ICC) were determined for interval data employing an average measure and two-way random effect model with consistency agreement. ICC was developed in the context of inter-rater agreement, and involves constructing ANOVA-type models for the observations, in order to look for patterns of scoring (McGraw and Wong, 1996)

*ERASOR inter-rater reliability.* Table 3 displays inter-rater reliability data for the ERASOR, completed for sex offenders only, as nonsexual offenders were not scored on the ERASOR. Percent agreement for each item ranged from 69 to 100 percent. In general, the second rater had higher positive base rate scores. In essence, this author was more liberal than the first rater. This was partially explained by the first rater having restricted access to files and therefore more missing data. Therefore, the first rater had less information on which to base decisions.

Kappas were found to range between .40 and 1.00 on the ERASOR. Ten items had kappas between .40 and .74 and six items showed overall perfect agreement between the two raters. In general, static items from the Historical Characteristics scale such as number of victims, or whether the victim was a male or child, resulted in better reliability between raters than more dynamic items, such as whether the participant was willing to change his attitude, or whether the participant had a well thought out prevention plan.

All scales on the ERASOR had significant intra-class correlations. The Psychosocial Functioning scale had the highest ICC score, suggesting it was rated more consistently between two raters, whereas the Treatment scale was scored most inconsistently between the two raters. The nature of the reports may explain the reason for this. Reports tend to be court-ordered for disposition decisions (called section 13s), or psychological assessments completed for courts, and therefore focus on criminal functioning aspects of the adolescent. Reports do not generally highlight treatment elements, however, do include such information.

*YLS-CMI inter-rater reliability.* Percent agreements were not computed for the YLS-CMI, due to the nature of the scoring. Mean scale scores and standard deviations for each rater are provided along with average measure ICCs in Table 4. For all eight scales, average measure ICCs ranged from .76 to .95. Overall ICC for the YLS-CMI was found to be .90. The most reliably scored scale between two raters was the Substance Abuse scale (.95) and the poorest agreement was found to be on both the Education/Employment and the Leisure/Recreation scales (.76).

#### *Test Correlations*

Correlations between the ERASOR total score and its five scales were significant and ranged from  $r = .24$  for the treatment scale and  $r = .74$  for the historical characteristics scale. The other scales showed correlations of  $r = .68$ ,  $r = .61$ , and  $r = .45$  for Sexually Deviant Interests, Attitudes, Behaviours, Psychosocial Functioning and Family/Environment, respectively. Correlations between the YLS-CMI total score and 8 scales were  $r = .62$  for Prior Offences,  $r = .68$  for Family/Parenting,  $r = .82$  for Education/Employment,  $r = .72$  for Peer Relations,  $r = .51$  for Substance Abuse,  $r = .61$  for Leisure/Recreation,  $r = .84$  for Personality/Behaviour, and  $r = .81$  for Attitudes/Orientation.

All scales from the YLS-CMI, with the exception of Substance Abuse were significantly correlated with the ERASOR total score. Correlations were  $r = .25$  for Prior Offences,  $r = .48$  for Family/Parenting,  $r = .53$  for Education/Employment,  $r = .41$  for Peer Relations,  $r = .07$  for Substance Abuse,  $r = .34$  for Leisure/Recreation,  $r = .65$  for Personality/Behaviour, and  $r = .54$  for Attitudes/Orientation. Correlations between the YLS-CMI total score and ERASOR scales were significant at  $r = .46$  for Sexual Interests, Attitudes and Behaviour,  $r = .25$  for Historical Characteristics,  $r = .77$  for Psychosocial Functioning,  $r = .41$  for Family/Environment, and  $r = .14$  for Treatment. The ERASOR and YLS-CMI total scores were significantly correlated at  $r = .61$ .

#### *Differences Between Sexual Offenders and Nonsexual Offenders on Two Measures*

As noted in the measures section, seventy-two of 110 nonsexual offenders were assessed for any of the deviant sexual items. A comparison between sexual attitudes and interests between sexual and nonsexual offenders was found to be significantly different. It was determined that the mean score for sexual offenders on the Sexual Interests, Attitudes, and Behaviour scale was 2.96, and the mean score for nonsexual offenders was 0.96.

*YLS-CMI.* Table 5 displays percentage differences between sexual and nonsexual offenders for YLS-CMI items. Nonsexual violent offenders scored significantly higher on the YLS-CMI, with a mean score of 24 out of 42, than sexual offenders, whose overall mean score was 18 out of 42. Nonsexual offenders scored significantly higher on all eight scales comprising the measure. A significantly larger percentage of nonsexual offenders were observed on the following individual items: prior probation, three or more current convictions, difficulty controlling behaviour, poor relations with father, disruptive classroom behaviour, low achievement, problems with teachers, truancy, unemployment, delinquent acquaintances,

delinquent friends, no positive friends, occasional drug use, chronic drug use, substance interference, substance use linked to the offence, limited participation, inflated self-esteem, physically aggressive, tantrums, inadequate guilt feelings, verbally aggressive, antisocial attitudes, not seeking help, actively rejecting help, and defies authority.

Although not statistically significant, sexual offenders showed higher percentages on the following items: inadequate supervision, inconsistent parenting, disruptive schoolyard behaviour, problems with peer relations, no positive acquaintances, chronic alcohol use, short attention span and callousness. Sexual offenders were shown to have significantly higher percentages for the strength categories on the Education/Employment, Peer Relations, Substance Abuse, Leisure/Recreation, and Attitudes/Orientation scales.

#### *Comparison of Offenders Using Logistic Regression Prediction Analysis for the YLS-CMI*

*YLS-CMI.* A direct logistic regression was performed on sex offender status as outcome. Analysis was performed using SPSS Logistic Regression. Sexual offenders were compared to all nonsexual offenders (those with and without victims). Predictors included eight scales from the YLS-CMI: Prior Offences, Family/Environment, Education/Employment, Peer Relations, Substance Abuse, Leisure/Recreation, Personality/Behaviour, and Antisocial/Orientation. Two cases with missing data were excluded from the analysis, leaving 218 cases available. Standard errors were not exceedingly large (ranging between .12 and .49) and convergence occurred at the third iteration. None of the cells (0%) had expected counts less than five.

A test of the full model with all eight predictors against a constant-only model was statistically reliable,  $\chi^2(8, N = 218) = 45.63, p < .001$ , indicating that the predictors, as a set, reliably distinguished between sexual and nonsexual offenders. Nagelkerke's  $R^2$  accounted for

25.2 percent of the variance in sexual offenders. Overall, 68 percent of offenders were classified correctly, 67 percent of sexual offenders and 70 percent of nonsexual offenders.

As Table 6 demonstrates, Wald statistics indicate that both Antisocial/Orientation and Peer Relations reliably predicted sexual and nonsexual offenders. The odds ratios for both scales were less than one indicating that scoring higher on the both Antisocial/Orientation and Peer Relations scales is less likely of sexual offenders. For example, those who score one unit higher on the Antisocial/Orientation scale are 37% less likely to be sex offenders, or conversely, 63% more likely to be nonsexual offenders.

The direct logistic regression was followed up with a series of sequential logistic regressions. Sex offender status was outcome and 42 individual YLS-CMI variables served as predictors. Predictors from each scale were entered in blocks. Items from Antisocial/Orientation and Negative Peers were entered first and second given that both scales reliably predicted offender status. Remaining scales were not entered in any particular order. None of the cells had a frequency count of less than five, indicating adequate goodness of fit. Standard errors ranged between 0.49 and 1.1. Again, there were 218 cases available for data analysis.

As compared to a constant-only model, the full model was reliable,  $\chi^2(5, N = 218) = 72.55, p < .001$ . The predictors from the following scales: Antisocial/Orientation, Negative Peers, Education/Employment, and Substance Abuse all contributed significantly ( $p < .05$ ) to the prediction of outcome, whereas Family/Parenting, Prior Offences, Personality/Behaviour, and Leisure/Recreation did not (see Table 7). After all blocks of predictors were entered, Nagelkerke's  $R^2$  accounted for 67% of the variance in sex offenders. Of the sexual offenders, 86% were classified correctly and of nonsexual offenders, 84 percent were classified correctly, for an impressive 85% overall classification rate.

Table 8 displays the final model and 12 individual predictors that contributed to outcome. Odds ratios indicate that an offender who is callous, has no positive acquaintances, has inconsistent parenting, displays disruptive schoolyard behaviour, and has chronic alcoholism problems is three to eleven times more likely to be a sexual offender. Nonsexual offenders are more likely to have procriminal attitudes, delinquent friends, and an increased number of current convictions. They are also more likely to be truant and physically aggressive. In addition, they are more likely to display inadequate guilt and have poor relations with their fathers.

*Other Predictors.* A sequential logistic regression (direct) analysis was performed to assess prediction of offender status outcome, first on the basis of the 12 reliable YLS-CMI predictors and thereafter, the addition of five background variables (Table 8). Background variables were early sexualized behaviour, early acting-out behaviour, sexual abuse, physical abuse and neglect. Six cases were excluded and 214 cases were available for analysis. All assumptions were met. There was a good model fit on the basis of the 12 YLS-CMI predictors,  $\chi^2 (12, N = 214) = 120.41, p < .001$ , Nagelkerke  $R^2 = .57$ . There was an 80% overall classification rate, with 76% of sexual offenders and 84% of nonsexual offenders being correctly classified. A comparison of models showed improvement with the addition of background variables,  $\chi^2 (17, N = 214) = 161.32, p < .001$ , Nagelkerke  $R^2 = .71$ . Of the sexual offenders, 85% were classified correctly, whereas 89% of the nonsexual offenders were classified correctly, for an overall classification rate of 87%. Of the additional predictors, early sexualized behaviour was found to be significant as a predictor of sexual offenders.

### *Recidivism Prediction*

#### *Comparison of Sexual Recidivists and Non-recidivists*

Over a 14-year period, a total of 39 out of 110 sexual offenders (35%) reoffended sexually. None of the nonsexual offenders included within the analyses reoffended sexually. The average follow-up period was 47.88 months, with a standard deviation of 41.14.

*ERASOR*. Percentages, correlations, and comparative statistics for ERASOR total score, scales, and items can be found for sexual recidivists and non-recidivists in Table 9. Sexual recidivists scored an average of 18 out of 25 on the ERASOR total score, with a range of 12 – 24. Non-recidivists scored an average of 15 out of 25, with a range of 7 – 23. The two scores were significantly different. Recidivists typically scored higher on all of the items, and reliably scored higher on all of the scales except Treatment. All recidivists had at least a score of one on the Sexual Interests, Historical Characteristics, Psychosocial Functioning and Treatment scales (out of four, nine, six, and two, respectively). All recidivists had a minimum score of two (out of four) on the Family/Environment scale.

Items that were statistically higher for recidivists are as follows: deviant sexual interests, obsessive interests, unwillingness to alter attitudes, two or more victims, prior sanctions, ever sexually assaulted a child or a stranger, indiscriminate victims, antisocial orientation, high-stress families and environment supporting opportunities to reoffend, with correlations ranging from  $r = .19$  to  $r = .30$ . Non-recidivists were not statistically higher on any of the items.

*YLS-CMI*. Percentages, correlations and comparative statistics for the YLS-CMI total score, scales, and items can be found for recidivists and non-recidivists in Table 10. Sexual

recidivists scored an average of 21 out of 42 on the YLS-CMI, while non-recidivists scored an average of 16 out of 42, which was significantly different. Minimum and maximum scores ranged from 2 to 33 for recidivists and 2 to 37 for non-recidivists, surprisingly.

Recidivists scored higher on many of the scales and items. Recidivists scored lower, however, on all of the strength items, suggesting they did not have as many strengths in any given area as the non-recidivists did. In fact, both the family/parenting strength and attitudes/orientation strength items were significantly higher for the non-recidivists.

Scales that were significantly higher for the recidivists included Prior Offences, Education/Employment, Leisure/Recreation and Attitudes/Orientation. Items that were significantly higher for recidivists included the following: prior probation, inadequate supervision, disruptive classroom behaviour, no personal interests, physical aggression, tantrums, procriminal attitudes, defies authority and actively rejects help. Significant correlations ranged from  $r = .20$  to  $r = .30$ . Of the YLS-CMI family and youth problem area predictors, only sexist/racist attitudes was significantly related to sexual recidivism ( $r = .18, p < .05$ ).

#### *Relationships Between Recidivism and Predictor Variables*

Tables 11 and 12 display the relationships between sexual, nonsexual violent, nonviolent and any recidivism and identifying and background variables, as well as the scales from the ERASOR and the YLS-CMI. Relationships are based on comparisons of Kaplan-Meier survival curve estimates using the Log Rank statistic (chi-square). Bivariate  $r$  values (or Spearman's rho) were computed for all predictors to demonstrate the direction of the relationship and magnitude between predictors and sexual recidivism. For non-dichotomous variables, area under the receiver-operating-characteristic (ROC) curve was examined (Lusted, 1971). ROC curves plot the true positive rate (sensitivity) as a function of the false alarm rate (specificity) and can range in

value from .5 (no relationship) to 1.0 (perfect relationship). A value between 0 and .49 indicates a reverse relationship. For a variable that is positively correlated with recidivism, the ROC curve value can be interpreted as the probability that a randomly selected recidivist will have a higher score than a randomly selected non-recidivist (Rice & Harris, 1995).

*Sexual recidivism.* There was negligible correlation between sexual recidivism and the following identifying variables: age, grade, residence, parental status, SES, and educational identification (see Table 11). Chi-square statistics indicate that the type of school program was significantly correlated with sexual recidivism, such that those attending special education classrooms and to a lesser degree, a behavioural classroom were more likely to recommit another sexual offence. Sexual reoffenders were less likely to be attending school at all, whether due to expulsion, suspension, or drop out. Not attending school was correlated with recidivism ( $r = .17$ ); however, this only approached statistical significance. Both early sexualized behaviour and early nonsexualized behaviour (prior to age 12) were significantly correlated with sexual recidivism. Whether an offender had been sexually or physically abused, or neglected was not related to sexual recidivism.

Sexual recidivism was significantly related to certain victim profiles. Sexual reoffenders were more likely to have assaulted a diverse group of victims: both male and female victims, both related and unrelated victims, both familiar and stranger victims, and child victims.

The overall ERASOR total score (out of 25), as well as the risk score (low, medium, high) were significantly correlated to sexual recidivism ( $r = .37$  and  $r = .38$ , respectively). The ERASOR total score ROC was .713. ERASOR scales that were significantly related to sexual recidivism included the following: Sexual Interests, Attitudes, and Behaviours, Historical Characteristics, Psychosocial Functioning, and Family/Environment functioning. Only the

Treatment scale was not related to sexual recidivism. ROCs ranged from .621 to .682 for significant ERASOR scales.

The overall YLS-CMI total score (out of 42) and overall risk score (low, medium, high, and very-high) were also significantly related to sexual recidivism, with correlations of .25 and .23, respectively. The YLS-CMI total score ROC was .661. YLS-CMI scores that were significantly related to sexual recidivism included Education/Employment, Leisure/Recreation, and Attitudes/Orientation, with ROCs ranging from .616 to .658. Prior Offences, Family/Parenting and Personality/Behaviour scales were related to sexual recidivism (ROCs ranged from .599 to .602), but only approached statistical significance.

*Sexual recidivism prediction with the ERASOR and YLS-CMI in combination.* As discussed, both the ERASOR and YLS-CMI were able to reliably predict sexual recidivism as demonstrated through total score correlations and ROCs. Direct logistic regressions further demonstrated that separate total scores for the ERASOR and YLS-CMI predicted sexual recidivism. A test of the full model with ERASOR total score against a constant-only model was statistically reliable  $\chi^2(1, N = 110) = 15.90, p < .001$ , indicating that the ERASOR total score was able to distinguish sexual recidivists from nonrecidivists. Nagelkerke's  $R^2$  indicated that 18.5 percent of the variance in sexual offenders was accounted for. The ERASOR was able to classify 33% of sexual recidivists and 84% of nonrecidivists, for an overall classification rate of 65%. Odds ratios indicated that a one-point increase on the ERASOR increased the likelihood of sexual recidivism by 23%.

A test of the full model with YLS-CMI total score against a constant-only model was also reliable  $\chi^2(1, N = 110) = 7.24, p < .01$ , indicating that the YLS-CMI total score was also able to distinguish sexual recidivists from nonrecidivists. Only 8.7% of the variance was accounted for as

determined by Nagelkerke's  $R^2$ . The YLS-CMI was able to classify 23% of sexual recidivists and 87% of nonrecidivists, for an overall classification rate of 64%. Odds ratios did not demonstrate an increase in risk of recidivism with an increase in the overall total score.

To determine how the two measurements predicted sexual recidivism in combination with one another, a third direct logistic regression was conducted. There were no missing data and 110 offenders were available for analysis. Convergence occurred after 3 iterations and there was no violation of multicollinearity.

A test of the full model with 2 predictors against a constant-only model was statistically reliable,  $\chi^2(2, N = 110) = 15.94, p < .001$ , indicating that the predictors, as a set, reliably distinguished between sexual recidivists and nonrecidivists. Only the ERASOR total score predictor was significant at  $p < .01$  (Wald criterion  $N = 7.84$ , regression coefficient = 0.21), whereas the YLS-CMI total score predictor did not add to the prediction of sexual recidivism when in combination with the ERASOR. Nagelkerke's  $R^2$  indicated that 18.5 percent of the variance in sexual recidivists was accounted for. The classification table indicated that 33% and 84% of sexual reoffenders and nonreoffenders were correctly predicted, respectively. The overall prediction rate was 65% of cases, exactly the same as if only the ERASOR total score had entered the model.

*Nonsexual violent recidivism.* There was little correlation found between nonsexual violent recidivism and the following identifying variables: age, residence, parental status, SES, attending school, and school program (see Table 11). Highest grade achieved at time of offence was negatively and significantly correlated ( $r = -.18$ ) with violent recidivism such that the lower the grade achieved, the greater the risk of recidivism. Type of school program was significantly related to violent recidivism. Those students in behavioural classrooms were more likely to

reoffend and in fact, recidivated in the fastest amount of time at 69 months. Those students in special education and regular classrooms took a mean time of 102 and 103 months, respectively to reoffend,  $\chi^2(2, N = 79) = 10.06, p < .01$ . Of the abuse history variables, only early behavioural acting out was related to violent recidivism. Sexual acting out, or experiencing any form of abuse or neglect was not related to violent recidivism.

Certain victim profiles were related to nonsexual violent recidivism including offenders who assaulted both males and females. There was also a strong correlation between offenders who assaulted males and peers and subsequent recidivism, although log rank statistics were not significant in these instances.

The ERASOR total score and risk ratings were predictive of nonsexual violent reoffending with  $r = .24$  and  $r = .23$ , respectively. The ERASOR total score ROC was .639. Predictive scales included the following: Historical Characteristics and Psychosocial Functioning. Similarly, the YLS-CMI was also predictive of nonsexual violent recidivism. The total score ROC was .662, correlations for total score and risk ratings were  $r = .27$  and  $r = .29$ , respectively. Five of the eight scales from the YLS-CMI were predictive of nonsexual violent recidivism, including: Prior Offences, Education/Employment, Peer Relations, Personality/Behaviour, and Attitudes/Orientation, with ROCs ranging from .605 to .668.

*Nonsexual violent recidivism prediction with the ERASOR and YLS-CMI in combination.*

To determine how the two instruments predicted nonsexual recidivism when scores were combined, a direct logistic regression was conducted. There were no missing data and 220 offenders were available for analysis. A test of the full model with 2 predictors against a constant-only model was statistically reliable,  $\chi^2(2, N = 220) = 20.89, p < .001$ , indicating that the

predictors, as a set, reliably distinguished between violent recidivists and nonrecidivists. Only the YLS-CMI total score predictor was significant at  $p < .01$  (Wald criterion  $N = 7.09$ , regression coefficient = 0.06), whereas the ERASOR total score predictor did not add to the prediction of sexual recidivism when in combination with the YLS-CMI. Nagelkerke's  $R^2$  indicated that 12.4 percent of the variance in sexual recidivists was accounted for. The classification table indicated that 22% and 87% of nonsexual violent reoffenders and nonreoffenders were correctly predicted, respectively. The overall prediction rate was 64% of cases.

*Nonviolent recidivism.* Very few variables were predictive of nonviolent recidivism. None of the identifying variables were correlated with reoffending (see Table 12). Only physical abuse was correlated with nonviolent recidivism ( $r = .17$ ). Victim profiles relationships are not discussed, as victims are not involved in nonviolent reoffending.

Neither the overall total scores from the ERASOR or YLS-CMI were predictive of nonviolent reoffending. The YLS-CMI had one scale that was predictive of nonviolent recidivism, which was the Substance Abuse scale with an ROC of .662.

*Any recidivism.* Any recidivism was defined as sexual, nonsexual violent, or nonviolent recidivism. Of the identifying variables, only grade (negatively), school program and educational identification predicted recidivism (see Table 12). Early behavioural acting out was correlated with any recidivism ( $r = .26$ ). Only male and female victim profiles predicted any recidivism, with a correlation of  $r = .17$ .

Overall, the ERASOR predicted any recidivism with an ROC of .674 and correlation of  $r = .28$ . Scales that also were predictive of any recidivism included: deviant interests, attitudes, and behaviours, psychosocial functioning and family / parenting scale. ROCs ranged from .614 to .670.

The YLS-CMI total score and risk ratings were also highly predictive of any recidivism with correlations of  $r = .38$  and  $r = .39$ , respectively. The total score ROC was .720. All eight of the YLS-CMI scales were predictive of any recidivism, with ROCs ranging from .626 to .690.

*Any recidivism prediction with the ERASOR and YLS-CMI in combination.* A direct logistic regression was conducted to determine how the ERASOR and YLS-CMI predicted any recidivism in combination. There was no missing data and 220 offenders were available for analysis. A test of the full model with 2 predictors against a constant-only model was statistically reliable,  $\chi^2(2, N = 220) = 34.57, p < .001$ , indicating that the predictors, as a set, reliably distinguished between recidivists (any kind) and nonrecidivists. Only the YLS-CMI total score predictor was significant at  $p < .001$  (Wald criterion = 14.17, regression coefficient = 0.10), whereas the ERASOR total score predictor did not add to the prediction of any recidivism when in combination with the YLS-CMI. Nagelkerke's  $R^2$  indicated that 21 percent of the variance in recidivists was accounted for. The classification table indicated that an impressive 96% of recidivists were correctly classified. Of nonrecidivists, 41% were correctly classified for an overall prediction rate of 80%.

#### *Survival Curve Estimates and Time to Reoffending*

Kaplan-Meier Survival Curve differences between sexual and nonsexual offender groups, including Log Rank (chi-square) statistics, mean and median time to reoffending, mean standard error, and 95% confidence intervals and recidivism rates are displayed in Tables 13 and 14.

*Survival curve differences between offender groups and recidivism.* Significant differences were found between the sexual and nonsexual groups with respect to any type of recidivism  $\chi^2(1, N = 220) = 5.16, p < .05$ . The recidivism rate for the nonsexual offender group (81%) was 19% higher than the recidivism rate for the sexual offender group (62%). Nonsexual

offenders were found to reoffend faster than sexual offenders with a mean survival time of 51 months for any type of reoffending. In comparison, sexual offenders had a mean survival time of 70 months before they reoffended. The Kaplan-Meier survival functions for sexual offenders and nonsexual offenders for any recidivism are displayed in Figure 1.

Significant differences were found between the sexual and nonsexual groups with respect to nonsexual violent offending,  $\chi^2(1, N = 220) = 25.68, p < .001$ . Out of 110 nonsexual offenders, 54% reoffended violently after an average mean survival time of 68 months. Of 110 sexual offenders, only 19 or 17% reoffended with a nonsexual violent crime taking a mean survival time of 122 months. Similarly, nonviolent reoffending rate comparisons between sexual and nonsexual offenders were also found to be significantly different  $\chi^2(1, N = 220) = 9.74, p < .01$ . Only ten or 9% of sexual offenders reoffended with nonviolent crimes after a mean survival time of 137 months. Twenty-eight or 25% of nonsexual offenders took a mean survival time of 105 months to reoffend with only nonviolence. Survival curves for violent and nonviolent reoffending can be found in Figures 2 and 3.

Survival curves that display differences in failure rates for sexual, violent nonsexual, and nonviolent reoffenders are provided in Table 13. As there is no statistical comparison between factors, neither log ranks nor figures are provided. Sexual reoffenders were the slowest and least likely to reoffend, with a mean survival time of 97 months and a 35% recidivism rate. There was no median to report, as at no time, did 50% of sexual offenders recidivate. Both nonsexual violent and nonviolent reoffenders had similar mean survival times of 67 and 66 months, respectively. The recidivism rate for nonsexual violent offenders was 64% and 49% for nonviolent offenders.

There was a relationship (approaching significance) between sexual recidivism and the overall type of relationship the offender had to the victim including intrafamilial, extrafamilial or a mixture thereof:  $\chi^2(2, N = 220) = 5.62, p = .06$ . Figure 4 reveals differences between the failure rates of those who offended against only familial members, only nonfamilial members or a mixture of the two. Those who offended against a mixture of both intra- and extra-familial victims had the highest recidivism rate of 50%. The mean survival time was only 71 months or just under 6 years. Those who offended against only family members had the lowest recidivism rate of 26% and the longest mean survival time of 104 months or 8.7 years. Those who offended against only extrafamilial victims were in the middle with a recidivism rate of 36% and a mean survival time of 98 months or just slightly over 8 years.

*Survival curve differences between ERASOR and YLS-CMI measures and sexual, violent nonsexual, any, and nonviolent recidivism.*

The ERASOR total score and risk scores were significantly related ( $r = .37$  and  $r = .38$ , respectively) to sexual recidivism. Of the 30 sexual offenders in the low-risk group (scoring between 0 and 14), only 1 reoffended. There were 56 offenders within the moderate-risk group, scoring between 15 and 19. Twenty-five or 45% of this group reoffended. Out of twenty-four high-risk offenders (scoring between 20 and 25) 54% reoffended. The survival curve estimate plotted in Figure 5 reveals significant differences in the failure rates of the risk groups for sexual recidivism,  $\chi^2(2, N = 110) = 14.33, p < .001$ . Mean survival time for low risk scores (0-14) was 151 months, for moderate scores (15-19), the mean survival time was 78 months and for high scores, the mean survival time was 68 months. Table 17 shows mean and median survival times, mean standard error, 95% confidence intervals, log-rank statistics, and recidivism rates.

The YLS-CMI total and risk scores were also significantly related to sexual recidivism, with correlations of  $r = .25$  and  $r = .23$ , respectively. The survival curve estimate plotted in Figure 6 reveals significant differences in the failure rates of the four risk groups for sexual reoffending,  $\chi^2(3, N = 110) = 9.53, p < .05$ . Of the low-risk group (scoring between 0 and 8), 2 out of 20 reoffended. The mean survival time was 131 months. Of the moderate-risk group (scores between 9 and 26), 38% reoffended and the mean survival time was 93 months. Within the high-risk group (scores between 27 and 34), 11 out of 19 or 58% reoffended, with a mean survival time of 47 months. Of the two very high-risk offenders (scoring between 35 and 42), neither reoffended sexually. Of these two offenders, one never went on to reoffend, in any manner, while the other was convicted separately, 21 times for violent and nonviolent offences.

*Nonsexual violent recidivism.* The ERASOR total and risk scores were significantly related to nonsexual violent recidivism, with correlations of  $r = .24$  and  $.23$ , respectively. The survival curves plotted in Figure 7 reveal significant differences in the failure rates of the three risk groups for nonsexual violent reoffending,  $\chi^2(2, N = 220) = 9.60, p < .01$ . There was a 15% recidivism rate amongst the 47 low-risk offenders, with seven reoffending violently, and a mean survival time of 128 months. Of the 115 offenders in the moderate-risk group, 44 or 38% reoffended violently, with a mean survival time of 84 months. Within the high-risk group, there was a 48% recidivism rate, with 28 out of 58 offenders reoffending violently. Mean survival time was 77 months.

The YLS-CMI total and risk scores were also significantly related to nonsexual violent recidivism, with correlations of  $r = .27$  and  $r = .29$ , respectively. The survival curve plotted in Figure 8 reveals significant differences in the failure rates of the four risk groups for violent reoffending,  $\chi^2(3, N = 220) = 26.25, p < .001$ . Of the 23 low-risk offenders, only one (4%)

reoffended violently, after a mean survival time of 139 months. One-third (46 out of 138) of the moderate-risk group reoffended with violence, after a mean survival time of 97 months. The high-risk group had a recidivism rate of 52%, with 26 out of 52 offenders reoffending violently, and a mean survival time of 63 months. There were nine very high-risk offenders, of which six or two-thirds reoffended violently, after a mean survival time of only 35 months (median was 9 months).

*Any recidivism.* The ERASOR total and risk scores were significantly related to any recidivism, with correlations of  $r = .28$  and  $.29$ , respectively. The survival curves plotted in Figure 9 reveals significant differences in the failure rates of the three risk groups for any reoffending,  $\chi^2(2, N = 220) = 7.46, p < .05$ . There was a 45% recidivism rate amongst the 47 low-risk offenders, and a mean survival time of 87 months. Of the 115 offenders in the moderate-risk group, 88 or 77% reoffended, with a mean survival time of 55 months. Within the high-risk group, there was an 83% recidivism rate, with 48 out of 58 offenders reoffending. Mean survival time was 51 months.

The YLS-CMI total and risk scores were also significantly related to any recidivism, with correlations of  $r = .38$  and  $r = .39$ , respectively. The survival curve plotted in Figure 10 reveals significant differences in the failure rates of the four risk groups for any reoffending:  $\chi^2(3, N = 220) = 25.16, p < .001$ . Of the 23 low-risk offenders, only three (13%) reoffended, after a mean survival time of 126 months. Out of 138 moderate-risk group offenders, 101 or 73% reoffended after a mean survival time of 61 months. The high-risk group had a recidivism rate of 90%, with 45 out of 50 offenders reoffending, and a mean survival time of 44 months. There were nine very high-risk offenders, of which eight reoffended, after a mean survival time of only 26 months (median was 9 months).

*Nonviolent recidivism.* Neither the scores on the ERASOR nor the YLS-CMI significantly predicted nonviolent recidivism, as displayed in Table 14. Although there were differences between failure rates of the four YLS-CMI groups, such that none of the low-risk group reoffended, and the very high group had the shortest mean survival time, these differences only approached significance. On the ERASOR, the high-risk group had the slowest rate of reoffending and the low-risk group, the fastest.

*Prediction of Sexual Recidivism as Determined by the ERASOR and YLS-CMI*

*ERASOR.* A stepwise (backwards) Cox regression survival analysis was performed to determine whether any of the five scales from the ERASOR influenced the survival or failure time to reoffending. Five scales from the ERASOR were entered into the analysis: Sexual Interests, Attitudes, and Behaviours, Historical Characteristics, Psychosocial Functioning, Family/Environment, and Treatment. Data from 109 sexual offenders were available for analysis. No violation of multicollinearity was evident as determined through principal axis factoring (Tabachnick & Fidell, 2001). Redundant covariates are those with squared multiple correlations (SMCs) in excess of .90. Covariates are well below .90, thus indicating no multicollinearity. There was no violation of proportional hazards as evidenced by parallel log-minus-log plots.

A test of the final model with two predictors demonstrated a significant change from the full model (previous step),  $\chi^2(2, N = 109) = 13.28, p < .01$ , indicating that both scales, Sexual Interests, Attitudes and Behaviours and Family/Environment did influence how long offenders survived before reoffending. Table 15 shows regression coefficients, Wald statistics, and risk ratios for each covariate. Both the Sexual Interests, Attitudes and Behaviour and Family/Environment scales reliably contributed to survival/ failure time. An increase in score on either of these scales means an offender is more likely to reoffend sexually.

In addition to the five ERASOR scales, five background variables were included in a Cox regression. Background variables were early sexualized behaviour, early acting-out behaviour, sexual abuse, physical abuse and neglect. Although the five background variables did not predict better than the ERASOR scales,  $\chi^2(5, N = 107) = 5.91, p < .4$ , the overall final model was significant,  $\chi^2(7, N = 107) = 15.66, p < .05$ , with early behavioural acting out as a significant covariate (Table 15).

A final stepwise Cox regression survival analysis was performed to determine the contributions of each of the ERASOR covariates for sexual recidivism. A test of the final model with eight covariates demonstrated a significant change from the full model (previous step),  $\chi^2(2, N = 109) = 13.28, p < .01$ , indicating that, of 25 predictors, four reliably influenced survival/failure time. Table 15 shows regression coefficients, Wald statistics, and risk ratios for each covariate. An offender who had deviant sexual interests, or chose indiscriminate victims was more likely to recidivate than those who did not have such covariates. Similarly, those offenders who were exposed to an environment that supported sexual offending or did not receive treatment were also more likely to reoffend than those who did not have such experiences. Sexually assaulting a stranger and a high-stress family were two covariates that approached significance.

*YLS-CMI.* A stepwise (backwards) Cox regression survival analysis was performed to determine whether eight scales from the YLS-CMI influenced time to reoffending. The eight scales entered were Prior Offences, Family/Parenting, Education/Employment, Peer Relations, Substance Abuse, Leisure/Recreation, Personality/Behaviour, and Antisocial/Orientation. Data from 107 sexual offenders were available for analysis. No violation of multicollinearity or proportional hazards was evident.

A test of the final model with two predictors demonstrated a significant change from the previous full model,  $\chi^2 (2, N = 107) = 8.05, p < .05$ , indicating that the scale Prior Offences did influence whether an offender sexually reoffended or not. The Leisure/Recreation scale approached significance only. Table 16 shows regression coefficients, Wald statistics, and risk ratios for each covariate. The greatest influence on survival time was the Prior Offences scale. An offender who scored higher on this scale was more likely to reoffend sexually.

A final stepwise Cox regression survival analysis was performed to determine the predictive contributions of each of the YLS-CMI covariates for sexual recidivism. A test of the final model with three covariates demonstrated a significant change from the full model,  $\chi^2 (3, N = 107) = 14.40, p < .01$ . Of the 42 items, prior probation and no personal interests reliably influenced survival time such that an offender with these covariates was more likely to reoffend sexually than an offender who did not have these covariates present. Table 16 displays statistics for each significant item. Inadequate family support only approached significance. Both prior probation and no personal interests items increase the likelihood of sexual reoffending by a factor of approximately two.

*Recidivism prediction with combined scales from ERASOR and YLS-CMI.* Separate logistic regressions were performed to determine how 13 scales from the ERASOR and YLS-CMI combined to predict sexual, nonsexual violent, and any recidivism. For sexual recidivism, recidivist status was outcome and five predictor scales from the ERASOR and eight scales from the YLS-CMI were entered (a probability of .05 for entry and .10 for exclusion) into a direct logistic regression. Data from 108 offenders were available for analysis. Convergence occurred after 4 iterations, with no violation of multicollinearity.

A test of the full model with all 13 predictors against a constant-only model was statistically reliable,  $\chi^2(13, N = 108) = 28.06, p < .01$ , indicating that the predictors, as a set, reliably distinguished between sexual recidivists and nonrecidivists. *Nagelkerke's R<sup>2</sup>* indicated that 31 percent of the variance in sexual reoffenders was accounted for. The classification table indicated that 53% and 84% of sexual recidivists and nonrecidivists were respectively classified. The overall prediction rate was 72% of cases.

Table 17 shows regression coefficients, Wald statistics, and odds ratios for the reliable predictor scales. According to the Wald criterion, Sexually Deviant Interests, Attitudes and Behaviours and Family/Environment scales from the ERASOR were predictive. Leisure/Recreation from the YLS-CMI only approached statistical significance, the only scale from this measure to do so. Odds ratios indicated that anyone who scored one unit higher on the Sexually Deviant Interests, Attitudes, and Behaviour scale was twice as likely to be a sexual recidivist. This was also true for the Family/Environment scale on the ERASOR. Although statistical significance was only approached, ( $p = .055$ ), scoring one unit higher on the Leisure/Recreation scale of the YLS-CMI increased the likelihood of being a sexual recidivist by 63%.

For nonsexual violent recidivism, 13 predictor scales from two measures were entered into a stepwise (backwards) logistic regression. Data from 218 offenders were available for analysis. Convergence occurred after 4 iterations, with no violation of multicollinearity. A test of the full model with all 13 predictors against a constant-only model was statistically reliable,  $\chi^2(4, N = 218) = 33.30, p < .001$ , indicating that the predictors, as a set, reliably distinguished between nonsexual violent recidivists and nonrecidivists. *Nagelkerke's R<sup>2</sup>* indicated that 19 percent of the variance in reoffenders was accounted for. The classification table indicated that 37% and 82% of

violent recidivists and nonrecidivists, were correctly classified, respectively. The overall prediction rate was 66% of cases.

According to Wald statistics (Table 17) three scales reliably contributed to the prediction of nonsexual violent recidivism. Having higher scores on the Historical Characteristics and Psychosocial Functioning scales from the ERASOR increased the risk of violent recidivism. Having a higher score on the Peer Relations scale from the YLS-CMI also increased the likelihood of this type of recidivism by almost 50 percent.

A final stepwise (backwards) logistic regression analysis was performed to determine any recidivism using 13 scales from two measures. A test of the full model with all 13 predictors against a constant-only model was statistically reliable,  $\chi^2(5, N = 218) = 46.47, p < .001$ , indicating that the predictors, as a set, reliably distinguished between recidivists and nonrecidivists. Nagelkerke's  $R^2$  indicated that 28 percent of the variance in reoffenders was accounted for. The classification table indicated that 95% and 42% of recidivists and nonrecidivists were correctly classified, for an overall prediction rate of 80 percent. Three scales contributed significantly to the prediction including Sexually Deviant Interests, Attitudes, and Behaviours, Psychosocial Functioning and Prior Offences from the YLS-CMI (see Table 17).

## Discussion

### *Overview*

The purpose of this study was to differentiate adolescent sexual and nonsexual offenders to identify any distinguishing characteristics, and to examine the predictive validity of two risk assessment tools, the ERASOR and the YLS-CMI with these populations.

Study results indicated that although sexual and nonsexual adolescent offenders shared certain characteristics, they were also distinguished by many variables. As

hypothesized, such variables allowed offenders to be reliably differentiated into sexual and nonsexual offender groups. Interestingly, adolescent sexual offenders were differentiated from other general offender through a lower incidence of criminal risk factors. Nonsexual offenders displayed a higher total score and higher means for all eight criminogenic needs areas of the YLS-CMI, the general criminal offending instrument. Although nonsexual offenders were generally more antisocial in nature, sexual offenders displayed greater deviant sexual interest.

This current study also hypothesized and found that both the ERASOR and the YLS-CMI were predictive of adolescent sexual recidivism, nonsexual violent recidivism and any recidivism, such that increased scores on either measure increased the risk of recidivism. Only the YLS-CMI displayed some modest ability to predict nonviolent recidivism.

Although sexual offenders appear to be less antisocial than nonsexual offenders in general, antisocial features such as procriminal attitudes and physical aggressiveness were significantly correlated with sexual *reoffending*. Sexual assault of children, indiscriminate victims, or strangers, as well as prior sanctions and probation, were static factors predictive of sexual recidivism. Sexual offenders who were considered to have high-stress families, inadequate supervision, no personal interests and environments supportive of offending were also at increased risk for sexual recidivism. Having strengths in the areas of family/parenting, and attitudes/orientation was significantly correlated with nonrecidivism.

Whether a sexual offender was going to recidivate or not was influenced by many predictor variables. Sexual offenders were more likely to reoffend sexually if they had deviant sexual interests, such that having this risk factor increased the risk of reoffending by a factor of almost 10. Other variables that increased the likelihood of sexual reoffending included sexually

assaulting strangers, or indiscriminate victims, having a supportive environment for reoffending, early behavioural acting out, incomplete treatment, prior probation and no personal interests.

Overall, sexual offenders had longer survival periods before they reoffended (sexually, violently, or nonviolently) than nonsexual recidivists.

#### *Advantages of the Study*

The methodology used in this study offered several advantages compared to previous studies. Unlike most previous research with adolescents, the follow up period was atypically long at 14 years (between 1987 and 2002), with a mean of 4 years. Typically, follow-up periods are found to range between 5 and 6 years with an average of 2 to 3 years (Worling & Curwen, 2000). Many studies are negatively affected by low base rates. Given that risk of recidivism continues for many years, longer follow-up periods yield higher recidivism rates, and within this study a rate of 35% was obtained for sexual offenders.

Second, sexual offenders were compared on all variables with a group of nonsexual offenders (as this was not a treatment outcome study, there was no necessity for a random assignment to groups). By comparing two types of offenders across all background variables, and through the use of two measurement tools, this study elicited greater information than previously available studies.

Third, evaluation of prediction was conducted using the most robust currently available statistical measures. Fourth, the two measures used demonstrated good reliability. The YLS-CMI is derived from a well-studied and psychometrically sound instrument (LSI-R, Andrews & Bonta, 1995). Preliminary psychometric data for the ERASOR suggests good reliability. Within the current study, both measures were easy to score and demonstrated good inter-rater agreement. Both measures contain a large number of dynamic factors. The ERASOR and YLS-

CMI share many of the same risk factors, as indicated by high scale correlations, adding strength to overall findings.

*Limitations of the study.* The present study suffered from several limitations. First, a direct comparison between the sexual and nonsexual offenders was not possible on the ERASOR items, as it is intended and designed specifically for sexual offenders. Items that were sexually-oriented and not routinely assessed for with nonsexual offenders. Only a small group of nonsexual offenders were found to have sexually-related information in their casefiles; however, it generally only pertained to sexist attitudes, rather than sexual interests. Second, the scoring method of the ERASOR was also modified. The ERASOR is an empirically-guided clinical judgment tool, such that the final judgement of risk is left up to professional opinion. Judgement of risk was not conducted using clinical judgement and therefore the predictive accuracy of this evaluation method could not be evaluated.

A third limitation was that a mixed group of nonsexual violent and nonviolent offenders was used, rather than a homogeneous nonsexual group, thus reducing the overall N for any one group. The nonviolent group was also problematic to score on the ERASOR given the inherent assumption of the Historical Characteristics scale that a victim is involved in the crime. Fourth, within this study, sexual offenders were treated as a homogeneous group of offenders. Some research suggests that those offenders who choose victims with different characteristics such as children versus peers, boys versus girls have different risk / need characteristics, such that "homogenizing" the group may obscure distinctions between these offenders (Bynum, 2001).

Fifth, recidivism data were determined using official data or criminal charges. Worling and Curweir (2000) suggest that although convictions or self-reports are often more conservative of reoffending rates, the current base rate is still most likely an underestimation of the true

reoffending rate. Finally, all data was retrospectively collected and participants were not interviewed in order to obtain new information. Data collection was, therefore, restricted by the completeness and reliability of accessed files.

### *Sexual and Nonsexual Offender Antisocial Tendencies*

Results from this study support the hypothesis that sexual and nonsexual offenders can be differentiated from one another by various features and characteristics. In general, sexual offenders displayed fewer antisocial features and tendencies relative to nonsexual offenders as evidenced by significantly lower scores on the YLS-CMI and all 8 criminogenic need areas. This is not to say that sexual offenders did not have substantial criminogenic needs themselves; however, those offenders who displayed antisocial attitudes, had negative peers, used interpersonal aggression, had recent escalations in anger, used weapons, and assaulted males were more likely to be nonsexual violent offenders. Additionally, nonsexual offenders displayed more prior offending and had more problematic family and school histories than sexual offenders.

It was hypothesized within the current study that sexual and nonsexual offenders would *not* be differentiated by their antisocial orientation, as the literature suggested that such tendencies are relevant for all kinds of offenders. However, this study's findings are consistent with those of the meta-analysis conducted by Seto and Lalumière (in press). They compiled results from 24 studies and found that, on average, sexual offenders had less conduct problems (manifestations of antisocial tendencies) than nonsexual offenders, despite the sexual offenders still having substantial conduct problems (Seto & Lalumière, in press).

Although the meta-analysis "obscured" a difference between adolescent sexual offenders who targeted children versus those who targeted peers, there was a propensity for those targeting children to have fewer conduct problems than the other group, thus suggesting that there are

“subgroups” of sexual offenders (Seto & Lalumière, in press). Although certain researchers support the notion that certain sexual offenders are motivated to commit sexual crimes because of paraphilic sexual interests (Becker, 1988b), others generally do not support the idea that adolescent sexual offenders “specialize” only in sexual offences (France & Hudson, 1993). Most sexual offenders are more likely to reoffend nonsexually than sexually (Caldwell, 2002).

There was not a large enough sample of sexual offenders who assaulted peers within the current study to support an examination of subgroups (peer versus child victims); however, it is noted that the majority (82%) of this study’s sexual offending population targeted children - it was in fact a significant differentiating characteristic of sexual offenders in comparison to nonsexual offenders. Additionally, the overall group of sexual offenders had less extensive prior criminal histories relative to nonsexual offenders, as well as fewer nonsexual reoffences relative to the nonsexual group. It may be that the particular population within the current study is more specialized with respect to committing sexual crimes, and in particular sexual crimes against children.

Indirect support for this claim comes from the finding that the sexual offenders had more sexually deviant attitudes, interests and behaviours, relative to the nonsexual offenders. It is noted, however, that the only types of deviant sexual attitudes documented for nonsexual offenders were sexist and “rape myth” in nature, which are generally not related to sexual offending (Zgourides et al., 1997). Results from this current study suggest then, that adolescent sexual offenders do experience their own unique set of sexually deviant attitudes, rationalizations, preferences, and interests that serve to motivate *first-time* sexual offending behaviour. The present findings are consistent with the findings of Seto and Lalumière (in press), in that there may be a subgroup (which the present study has potentially captured) of adolescent sexual

offenders who target children, demonstrate fewer antisocial tendencies, and restrict this antisocial orientation towards the sexual domain of offending. This group may be more motivated by deviant sexual interests than an antisocial propensity to break the rules or hurt someone.

#### *Additional Differences Between Sexual and Nonsexual Offenders*

Sexual and nonsexual offenders did not differ on identifying characteristics that were demographic in nature such as age, parental status, residence, and family socioeconomic status (SES). Although not predicted, there were some minor and major differences between the two populations regarding static educational traits, such that nonsexual offenders had more problematic school histories than sexual offenders. Previous studies have generally shown that although sexual offenders may have school problems including academic difficulties, rarely do the findings differ from their nonsexual counterparts (Fehrenbach et al., 1986; Jacobs et al., 1997; McCurry et al., 1998). Within the current study, sexual offenders demonstrated more successful educational histories as evidenced by attending school more than nonsexual offenders, and by being in a higher grade at the time of offence. Furthermore, sexual offenders required less educational resources such as behavioural classrooms and had fewer learning disorders in conjunction with behavioural problems, as compared to nonsexual offenders. These findings are not surprising in context of the overall sexual offender profile (less problematic).

Not only did sexual offenders display less problematic school histories, and antisocial tendencies, they also displayed strengths in various areas of functioning. Sexual offenders demonstrated more positive attributes in the areas of education, peer relations, substance abuse, leisure/recreation, and attitudes/orientation suggesting that they do not exhibit the same pathological patterns as nonsexual offenders. This is in agreement with some of the previous adolescent literature (Awad et al., 1984; Oliver et al., 1993; Zgourides et al., 1997) which has

also shown that sexual offenders tend to have less deviant personalities. In fact, some of these positive characteristics may serve as protective factors against further reoffending, as discussed in the prediction section.

*Abuse variables.* Other identifying characteristics that differentiated offenders included abuse history, both committed and experienced. Both groups of offenders displayed similar levels of early nonsexual acting out behaviour, but only a minimal proportion of nonsexual offenders displayed any early sexual acting-out behaviour, as compared to a substantial amount of the sexual offenders. Early sexual acting out behaviour was also associated with further sexual reoffending ( $r = .16$ ), thus designating it as an important characteristic and risk factor of sexual offenders. It is recommended that sexualized behaviour that is aggressive in nature and observed in children should be flagged by caregivers/service providers as a warning sign of potential problems.

In addition to displaying more early sexual acting out behaviour, adolescent sexual offenders also experienced significantly more sexual abuse than nonsexual offenders; however, this did not act as a differentiating characteristic. A similar proportion of sexual and nonsexual offenders had experienced physical abuse in their lives. Hanson and Slater (1988) suggested that any form of abuse or neglect can lead to various dysfunctional / pathological forms of behaviour, including criminal behaviour. There is, however, little relationship between experienced sexual abuse and sexual recidivism as discussed later on in this study and by other authors (Hagan & Cho, 1996; Hanson & Bussière, 1998; Hanson & Morton-Bourgon, 2004; Rasmussen, 1999; Worling & Curwen, 2000).

Adolescent sexual and nonsexual offenders share various characteristics and both have antisocial tendencies underlying their offences; however, sexual offenders do not display the same

high degree of antisocial orientation. In fact, deviant sexual interests may provide greater motivation for the crime of sexual assault suggesting that, as Hanson and Bussière have stated, “separate processes contribute to sexual offending” (1998, p. 357). In light of this assertion, it is also proposed that adolescent sexual *offenders* are characterized differently than adolescent sexual *reoffenders*. In other words, there are different variables involved in the onset of sexual offending as compared to the continuance of sexual offending.

### *Prediction of Recidivism*

As hypothesized within the current study, both the ERASOR and YLS-CMI demonstrated moderate predictive accuracy with sexual recidivism. Both risk assessment tools also predicted nonsexual violent recidivism and any recidivism. Only the YLS-CMI displayed some modest ability to predict nonviolent recidivism.

### *Predictive Accuracy*

This is the first known study to demonstrate predictive validity for adolescent sexual recidivism. Morton (2003) attempted to predict sexual recidivism with the ERASOR and YLS-CMI as well, but was unable to do so. There are several possible reasons why this study was able to do so. First, this study used an atypically long follow-up period of 14 years, which resulted in a sexual recidivism base rate of 35%, double that of Morton’s base rate. Second, in the present study, risk ratings were generated through statistical means, rather than through clinical judgement. Clinical judgement is open to interpretation and can be biased. Given that both studies were retrospective and coded from pre-existing reports, clinical opinion would be based on second-hand information, albeit valid and factual. Meeting with a client provides invaluable information that is not necessarily captured in a report. Morton suggested that her lack of clinical experience may have influenced the risk ratings and resulted in poor predictive accuracy (Morton,

2003). At the same time, she did show some predictive accuracy with both measures and violent recidivism (including sexual recidivism), suggesting that the antisocial attitudes that lead to interpersonal aggression were captured by the measures and resulted in the prediction.

#### *Recidivism and Risk Factor Relationships*

*Antisocial tendencies.* The present study is the first known study to empirically demonstrate that antisocial tendencies, as measured by the Attitudes / Orientation scale on the YLS-CMI are predictive of sexual recidivism. Although such results are new to the adolescent sexual offender field, they are quite consistent with the adult sexual offender research. Two large-scale meta-analyses (Hanson & Bussière, 1998; Hanson & Morton-Bourgon, 2004) have convincingly demonstrated that adult sexual offenders are individuals with deviant sexual interests who are willing to harm others, in other words, are antisocial in nature. There is now empirical evidence to suggest that adolescent sexual recidivists also have antisocial tendencies. It is likely that this study was able to tap into this antisocial population of sexual offenders, given that the Durham Family Court Clinic's mandate is to take high-risk offenders, once all other resources are exhausted.

Further support that antisocial tendency is related to sexual recidivism comes from the YLS-CMI strength items. Those sexual offenders who were considered to have strength in the area of antisocial attitudes, i.e., more prosocial or positive attitudes, were more likely to be nonrecidivists. Being more prosocial by nature is a protective attribute against further offending and an important implication for treatment intervention.

It was not unexpected that the YLS-CMI instrument, a measure of general criminal offending, was able to predict sexual recidivism. Hanson and Morton-Bourgon (2004) indicated

that the SIR (Bonta, et al., 1996), also a measure of general criminal offending, was able to predict adult sexual offending because antisocial orientation is such a well-established risk marker.

*Deviant sexual interests.* Deviant sexual interest was also found to be significantly related to adolescent sexual recidivism within the current study, which is also consistent with the adult literature (Hanson & Bussière, 1998; Hanson & Morton-Bourgon, 2004). This risk factor has also consistently displayed an empirical relationship with adolescent sexual recidivism (Worling & Långström, 2003).

All scales from the ERASOR, with the exception of Treatment, were significantly related to adolescent sexual recidivism within the current study. Other notable single item predictors from the ERASOR included sexually assaulting indiscriminate victims and to a lesser extent, strangers, further suggestive of an antisocial tendency rather than a preferred victim choice. At this time, it is unclear whether adolescents establish clear victim preferences or rather this is a dynamic process throughout the developmental years of adolescence. Interestingly, survival curves indicated that relationship to victim influenced reoffending, i.e., how long an offender survives without reoffending. There was a tendency shown that those sexual offenders who targeted only family members (as opposed to friends, strangers) took longer to reoffend and had lower reoffending rates than those who targeted only extrafamilial victims or a mixture thereof. It has also been demonstrated within the adult sex offender literature that “incestuous” offenders have the longest survival rates (Hanson et al., 1995).

*Family environment.* As hypothesized, significantly more recidivists came from families that experienced dysfunction. Family dysfunction was denoted by the ERASOR high stress variable, defined as a combination of marked marital discord, death of a family member, separation of a family member, major illness of a family member, significant change in residence or

income, poverty, criminal activity of family member, victimization within the family and highly conflictual family relationships. Although it has been suggested that families in distress heighten or exacerbate an adolescent's negative emotional state including anger or depression, this would not appear to be a mitigating circumstance for reoffending in this study. Rather, it may be that a family with so many stressful events occurring is less aware of the adolescent's risk factors, or even the behaviour. This theory is supported as a second item from the Family/Environment scale termed Environments Supporting Opportunities to Reoffend Sexually was also related to sexual recidivism. Families or care providers for adolescents may not provide adequate supervision with respect to potential victims, they may deny the adolescent's high risk factors and they may permit/enable exposure to sexually influential behaviours and gestures and consequently, offenders act on the opportunity to reoffend. This was also supported by results from the YLS-CMI. Inadequate supervision, an item on the Family /Parenting scale, was significantly related to recidivism. Demonstrating that sexual recidivism is related to dynamic risk factors such as supportive environments and inadequate supervision and no personal interests (from YLS-CMI) has important implications in terms of providing management and intervention strategies for adolescents. Teaching these adolescents skills and helping them develop prosocial interests, in conjunction with adequately supervising their activities, are simple ways to help reduce the risk of recidivism.

Hanson and Morton-Bourgon (2004) have proposed a model of adult sexual recidivism based on current theories (Knight & Sims-Knight, 2003; Malamuth, 2003). It suggests that in addition to deviant sexual interest and antisocial orientation, negative family backgrounds (and problems with friends/intimate partners, and attitudes tolerant of sexual assault) influence or are characteristic of persistent sexual offenders. Adverse family backgrounds lay a foundation of

abuse and neglect that results in insecure attachments and eventual poor social functioning for the young person. Building on delinquency theories, it is posited that such social mistrust can lead to feelings of rejection and loneliness and a possible escape through bonds with negative peers and delinquent behaviour. As sexuality develops in context of social and intimacy deficits, attitudes that are supportive of sexual offending can develop through peers, distorted insights and eventually lead to sexual behaviours that are selfish, and even adversarial (Hanson & Morton-Bourgon, 2004).

Within this study, there has been at least preliminary support for the application of various aspects of this model with adolescent sexual offending, e.g., empirical support for a relationship between deviant sexual interests, antisocial tendencies and negative family conditions. Using such models to guide the field of adolescent sexual offender research is crucial to understanding this population and developing instruments that capture the relevant risk factors.

*Predictive ability of ERASOR and YLS-CMI combined.* Both the ERASOR and YLS-CMI were able to independently predict sexual recidivism. They have moderate associations with sexual recidivism. In essence, the ERASOR can categorize sexual reoffenders (33%) better than the YLS-CMI, whereas the YLS-CMI makes small improvements in the classification of nonrecidivists. In combination, the YLS-CMI does not contribute reliably to sexual recidivism prediction over and above the ERASOR. This is most likely due to the ERASOR's ability to measure both deviant sexual interests and antisocial tendencies. The leisure / recreation scale was the only scale from the YLS-CMI to show marginal improvement above ERASOR scales; however, this was not significant. The opposite was found when YLS-CMI and ERASOR were combined to predict nonsexual violent recidivism. In combination, only the YLS-CMI reliably predicts this recidivism. However, sensitivity improves when combining the scales. Together,

historical characteristics and psychosocial functioning scales from the ERASOR and peer relations from the YLS-CMI were able to correctly classify 37% of nonsexual violent recidivists and 82% of nonrecidivists.

### *Rates of Sexual Reoffending*

The prediction ability of both the ERASOR and YLS-CMI generalized to time to reoffend. Not only did a greater number of risk factors on either measure correlate to overall sexual recidivism rates, but survival curves demonstrated that more risk factors resulted in less time to reoffending. Low-risk offenders, as measured by less than 15 risk factors on the ERASOR and less than 9 risk factors on the YLS-CMI, took the longest time to commit another sexual crime. These offenders took 11 to 13 years on average to reoffend. Comparatively, high-risk offenders scoring more than 19 risk factors on the ERASOR and more than 26 on the YLS-CMI, took only between 4 and 6 years to reoffend sexually.

*Reoffending rates for sexual and nonsexual recidivism.* Overall reoffending rates indicated that compared to nonsexual offenders, sexual offenders take much longer to recidivate. Sexual offenders who go on to commit another sexual crime took an average of 8 years. Nonsexual offenders who committed another nonsexual violent crime took an average of 5 ½ years, almost identical to nonviolent reoffenders. For any type of recidivism, sexual offenders still took longer than nonsexual offenders in general, waiting about 6 years to reoffend as compared to 4 years. Sexual offenders took almost twice as long as nonsexual offenders to commit a nonsexual violent crime. Finally, sexual offenders took over 11 years to commit a nonviolent crime, whereas nonsexual offenders took only 8 ½ years. In general, it would appear that adolescent sexual offenders are not frequently committing (or are not being detected for) sexual offences or any other for that matter, further providing some support that adolescent sexual

offenders specialize in sexual crimes. If this group of offenders commits another crime, it tends to be sexual in nature; however, antisocial orientation, sexual deviant interests, and opportunities to reoffend are important factors related to that recidivism.

*Prediction of Nonsexual Violent, Nonviolent, and Any Recidivism*

*Nonsexual violent recidivism.* As hypothesized, the YLS-CMI predicted nonsexual violent recidivism. The greater the number of risk factors, the more likely the adolescent was to reoffend. Nonviolent offenders were characterized by antisocial attitudes, antisocial personality, criminal peers, prior offending and problematic school histories, thus providing support for the PCC model (Andrews & Bonta, 2003) of general criminal offending. The ERASOR further confirms that antisocial orientation is very typical of nonsexual violent reoffenders. Perhaps not unsurprisingly, the ERASOR predicted nonsexual violent recidivism suggesting that both the YLS-CMI and ERASOR are tapping into antisocial tendencies related to interpersonal violence.

*Nonsexual nonviolent recidivism.* Only the YLD-CMI demonstrated some modest ability to predict nonsexual nonviolent recidivism. The only factors associated with nonviolent reoffending were past physical abuse of the offender and substance abuse factors found on the YLS-CMI measure. Perhaps as Hanson and Slater (1988) argued, prior abuse (regardless of kind) sets people up for all sorts of future psychosocial difficulties. In this study, experiencing prior physical abuse may have led both to substance abuse problems and problems committing minor criminal acts, rather than suggest causal pathways between risk factors and nonviolent reoffending.

*Any recidivism.* Any recidivism refers to a combination of all types of recidivism (sexual, nonsexual violent and nonviolent) and therefore it was easily predicted by the ERASOR and YLS-CMI, particularly the latter. Even in combination with the ERASOR, the YLS-CMI total score

on its own was able to correctly classify an impressive 95% of recidivists. Background variables correlated with any recidivism included type of school program and educational identification such that overall, recidivists of any kind tend to be in specialized classes and identified within the educational system. Static predictors included diverse victims, male and female victims, and early behavioural acting out (but not early sexual acting-out). The less schooling an offender had, the greater the risk for reoffending.

All scales from the YLS-CMI predicted any recidivism, which supports PCC risk / need theory. This suggests that all eight areas of risk need to be assessed and addressed with young offenders in order to properly identify adolescents at risk for further crime (regardless of the nature of it) and also to target areas of need to assist with intervention and treatment protocols.

The ERASOR total score was also correlated with any recidivism, with 3 out of 5 scales showing predictive ability: Deviant Interests, Psychosocial Functioning, and Family / Environment. Historical Characteristics did not predict any recidivism, as most likely the nonviolent group is "victimless" and therefore not enough variability was available. Treatment factors also did not predict overall recidivism, despite some small effects with sexual recidivism. In combination, 13 scales easily categorized recidivists (96% sensitivity). Deviant sexual interests, psychosocial functioning and prior offences were the significant predictors.

### *Conclusions and Future Directions*

Within this study, adolescent sexual and nonsexual offenders, were differentiated from each other on a large number of variables. In essence, both offender groups have underlying antisocial tendencies, which is not unusual, considering they all engage in criminal offending. However, relative to nonsexual offenders, sexual offenders displayed less antisocial features as demonstrated by lower mean scores on all 8 criminogenic need categories of the YLS-CMI.

These findings were consistent with the results from the recent meta-analysis (Seto & Lalumière, in press), which also found that sexual offenders had fewer conduct problems in comparison to nonsexual offenders. The meta-analysis and the current study have suggested that possible subgroups of adolescent sexual offenders may exist who are more motivated by deviant sexual interests and specifically a sexual interest in children. An obvious direction for research is to further study the differences not only between offender groups, but possible subgroups within adolescent sexual offenders, i.e., those who target children and those who target peers. It is important to determine whether adolescent sexual offenders form sexual preferences at this stage of development, or whether that occurs through repeated offending.

The current study was the first study to determine predictive validity for sexual recidivism and two risk assessment measures. Prior to this, there were no validated tools available to those who worked with adolescent sexual offenders. Although this study did not provide support for the clinical judgement method of risk determination used in the ERASOR, it demonstrated that, in fact, the risk factors incorporated in the ERASOR are related to sexual recidivism. The greater the number of ERASOR risk factors a sexual offender has, the greater the offender's chance for recidivism.

This study further demonstrated that important risk markers for adult sexual recidivism are also associated with adolescent sexual recidivism. Factors that predict general criminal offending, i.e., antisocial orientation / tendencies, and adult sexual recidivism i.e., deviant sexual interests now have empirical support for being related to adolescent sexual recidivism. As these risk factors are dynamic, they can provide direction for intervention and management strategies for service providers working with these adolescents.

Future directions for research should include validating these results on a different sample. This study examined a high-risk group of offenders referred to a court clinic. A possible future step is to take the results and test them on a different sample of sexual offenders. This could be done in a number of ways. Using prospective data and comparing the ERASOR scoring method used in this study to the clinical judgement approach could assist in determining the value of both approaches and determine respective levels of accuracy. Or the results of this study could be incorporated to “weight” the ERASOR to create an objective scoring method, which could then be tested on a different sample of sexual offenders. Results from this study could be used to guide professional judgements regarding risk. For example, deviant sexual interests and antisocial tendencies should be given greater consideration when conducting adolescent sexual recidivism assessments. Of course, continued research within the adolescent sexual offending research is crucial and necessary to further our understanding of this population and provide more effective assessment and treatment interventions.

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Table 1  
Descriptive Information for Sex Offenders and Nonsexual Offenders

Variable	Sex Offender Mean ( <i>SD</i> ) / % <i>N</i> = 110	Nonsexual Offender Mean ( <i>SD</i> ) / % <i>N</i> = 110	Pearson Chi-Square
Age	14.13 (.14)	14.26 (.13)	.32 <sup>a</sup>
Highest Grade Achieved	7.83 (.14)	7.50 (.12)	3.29 <sup>a</sup>
Youth Residence			1.77
Home	88.2%	90.9%	
Foster / Group Home	11.8%	8.2%	
Custody	0.0%	0.9%	
Parental Status			2.21
Biological	32.7%	27.3%	
Single Parent	29.1%	36.4%	
Mixed Step	25.5%	20.9%	
Adopted / Other	4.5%	5.5%	
CAS Care	8.2%	10.0%	
Family SES			3.48
Low	42.6%	44.0%	
Medium	33.3%	25.7%	
High	0.0%	1.8%	
Social Assistance	24.1%	28.4%	
Attending School			7.01
Yes	74.5%	59.1%	
Dropped Out	10.9%	12.7%	
Suspended	12.7%	23.6%	
Expelled	1.8%	4.5%	
Type of School Program			13.68**
Regular Classroom	37.3%	27.3%	
Section 19 / 27	22.7%	46.4%	
Special Resources	40.0%	26.4%	
Education Identification			14.74**
None	33.6%	20.0%	
Behavioural	18.2%	25.5%	
Low IQ / Dev't Delay	9.1%	3.6%	
Learning Disorder	20.9%	15.5%	
L.D. + Behavioural	18.2%	35.5%	

Note. *N*s range from 217 – 220 due to missing data

<sup>a</sup> = *F* - statistic

\*\* *p* < .05. \*\*\* *p* < .01

Table 2  
Descriptive Information Regarding Index Crime, Reoffences, and Abuse History

Variable	Sex Offender Percentage / (N)	Nonsex Offender Percentage / (N)
<b>Type of Offence</b>		
Any Sexual	100% (110)	n/a
Sexual + Nonsexual	48% (53)	n/a
Violent (victim)	100% (110)	63% (69)
Nonviolent (victimless)	n/a	37% (41)
Prior Sexual Charges	5.4% (6)	0%
Prior Nonsexual Charges (at least 1)	33% (36)	55% (60)
<b>Did Offender Reoffend (any)</b>		
Sexual Recidivism	62% (68)	80% (88)
Violent Recidivism	35% (39)	0%
Nonviolent Recidivism	17% (19)	55% (60)
Additional Reoffending	9% (10)	25% (28)
Any Adult Convictions	35% (1-21) <sup>a</sup>	66% (1-16) <sup>a</sup>
27% (30)	52% (57)	
<b>Victim Profiles</b>		
# of Victims:		
1	40% (44)	26% (18)
2	39% (43)	48% (33)
3	11% (12)	22% (15)
4	7.3% (8)	<1% (1)
5	1.8% (2)	<1% (1)
11	0.9% (1)	
Males	38% (42)	88% (61)
Both Male & Female	20% (23)	47% (33)
Children	82% (90)	10% (7)
Peers	17% (19)	91% (63)
Both Peers & Children	17% (19)	26% (18)
<b>Incestuous Behaviour</b>		
All	28% (31)	n/a
Some	24% (26)	n/a
None	48% (53)	n/a
Early Sexual Behaviour	41% (44)	3.6% (4) <sup>***</sup>
Early Nonsexual Behaviour	59% (65)	69% (76)
Sexually Assaulted	39% (43)	18% (19) <sup>***</sup>
Physically Assaulted	36% (40)	42% (45)
Neglected	22% (24)	34% (37) <sup>**</sup>

Ns based on 110 sexual offenders and 110 nonsexual offenders

<sup>a</sup> = # of additional, separate convictions

\*\*  $p < .05$ . \*\*\*  $p < .01$

Table 3  
Inter-rater Reliability for the ERASOR (sex offenders only)

Variable	Variable Presence Rater 1	Variable Presence Rater 2	Percent <sup>b</sup> Agreement	Kappa / ICC
Deviant Interests				.74 <sup>a</sup>
Deviant Sexual Interests	75%	63%	88%	.71
Obsessive Sexual Thought	63%	75%	88%	.71
Supporting Attitudes	69%	81%	88%	.67
Unwilling to Alter	38%	56%	69%	.40
Historical Characteristics				.78 <sup>a</sup>
Two Victims or More	50%	50%	100%	1.00
Same Victim Assaulted	44%	50%	81%	.63
Prior Adult Sanctions	31%	31%	100%	1.00
Threaten or Weapon Used	13%	13%	100%	1.00
Sexually Assault a Child	81%	81%	100%	1.00
Sex Assault a Stranger	100%	100%	100%	1.00
Indiscriminate Victims	19%	25%	94%	.82
Ever Male Victims	25%	25%	100%	1.00
Diverse offences	31%	50%	81%	.63
Psychosocial Functioning				.87 <sup>a</sup>
Antisocial Orientation	63%	69%	94%	.86
Lack of Intimate Peers	75%	88%	88%	.60
Negative Peer Association	50%	38%	88%	.75
Interpersonal Aggression	50%	56%	94%	.86
Recent Anger Escalation	75%	81%	94%	.82
Impulsivity	56%	69%	88%	.74
Family / Environment				.73 <sup>a</sup>
High Stress Family	81%	88%	94%	.77
Problem Parent Relations	75%	81%	94%	.82
Parents No Support	56%	50%	94%	.88
Supporting Environment	63%	69%	81%	.59
Treatment				.55
No Strategy / Prevent Plan	50%	75%	75%	.50
Incomplete Treatment	88%	81%	94%	.77
ERASOR Total				.87 <sup>a</sup>

*N* = 16

<sup>a</sup> = Average Measure Intra-Class Correlation

Table 4

Inter-rater Reliability for YLS-CMI Scales					
Variable	Mean Rater 1	Mean Rater 2	St'd Deviation Rater 1	St'd Deviation Rater 2	Intra-Class Correlation <sup>f</sup>
Prior & Current Offences	1.00 <sup>a</sup>	0.79 <sup>a</sup>	1.44	1.25	.85
Family / Parenting	3.09 <sup>b</sup>	3.62 <sup>b</sup>	1.82	1.54	.79
Education / Employment	2.59 <sup>c</sup>	4.00 <sup>c</sup>	1.69	1.87	.76
Peer Relations	1.45 <sup>d</sup>	2.21 <sup>d</sup>	1.06	1.02	.87
Substance Abuse	0.56 <sup>a</sup>	0.82 <sup>a</sup>	1.16	1.49	.95
Leisure / Recreation	0.94 <sup>e</sup>	1.97 <sup>e</sup>	0.95	1.02	.76
Personality / Behaviour	3.18 <sup>c</sup>	4.15 <sup>c</sup>	1.85	1.84	.89
Attitudes / Orientation	1.62 <sup>a</sup>	2.08 <sup>a</sup>	1.13	1.36	.83
YLS – CMI Total					.90

*N* = 34  
<sup>a</sup> = out of 5    <sup>b</sup> = out of 6    <sup>c</sup> = out of 7    <sup>d</sup> = out of 4    <sup>e</sup> = out of 3    <sup>f</sup> = average measure ICC

Table 5

## Percent of Sexual Offenders and Nonsexual Offenders with Item Present on YLS-CMI

Variable	Sexual Offender Percent ( <i>N</i> =110) / Means ( <i>SD</i> )	Nonsex Offender Percent ( <i>N</i> =110) / Means ( <i>SD</i> )	Pearson Chi- Square or <i>F</i> - statistic
YLS-CMI Total Score	17.87 (8.69)	23.63 (7.09)	28.96***
Prior Offences / Dispositions	89 (1.43)	1.5 (1.27)	11.16***
Three+ prior convictions	13.6	21.8	2.52
Two+ prior failures comply	6.4	7.3	.072
Prior probation	29.1	48.2	8.46***
Prior custody	12.7	20.9	2.63
Three+ current convictions	26.6	51.8	14.59***
Family / Parenting	3.59 (1.68)	4.08 (1.50)	5.25**
Inadequate supervision	64.5	62.7	.079
Difficult control behaviour	58.2	75.5	7.40***
Inappropriate discipline	48.2	59.1	2.63
Inconsistent parenting	85.5	82.7	.306
Poor relations – father	56.4	74.5	8.04***
Poor relations – mother	46.4	53.6	1.16
Strength	12.7	5.5	3.52
Education / Employment	3.57 (1.94)	4.49 (1.52)	15.39***
Disruptive classroom beh	67.9	80.0	4.17**
Disruptive schoolyard beh	55.0	54.5	.006
Low achievement	71.6	86.4	7.23***
Problems w peer relations	75.2	74.5	.014
Problems w teachers	45.9	64.5	7.72***
Truancy	34.9	70.9	28.56***
Unemployed/not seeking	6.4	18.2	7.00***
Strength	21.1	6.4	10.06***
Peer Relations	1.90 (1.11)	2.65 (.94)	29.58***
Delinquent acquaintances	45.5	71.8	15.76***
Delinquent friends	26.4	72.7	47.30***
No positive acquaintances	56.4	45.5	2.62
No positive friends	61.8	75.5	4.75**
Strength	20.9	6.4	9.88***

Note. *N*s range from 209 - 220 due to missing data

\*\*  $p < .05$ .      \*\*\*  $p < .01$ .

Table 5 (cont'd)

## Percent of Sexual Offenders and Nonsexual Offenders with Item Present on YLS-CMI

Variable	Sexual Offender Percent ( <i>N</i> =110) / Means ( <i>SD</i> )	Nonsex Offender Percent ( <i>N</i> =110) / Means ( <i>SD</i> )	Pearson Chi- Square or <i>F</i> - statistic
Substance Abuse	.63 (1.18)	1.39 (1.49)	17.75***
Occasional drug use	25.5	57.3	22.96***
Chronic drug use	8.2	21.8	8.02***
Chronic alcohol use	10.0	8.2	.220
Substance interferes	11.8	32.7	13.89***
Substance linked to offence	7.3	19.1	6.71***
Strength	70.0	42.7	16.63***
Leisure / Recreation	1.59 (1.11)	1.87 (.98)	3.99**
Limited participation	61.8	74.5	4.11**
Better use of time	70.0	80.0	2.93
No personal interests	27.3	32.7	.779
Strength	39.1	24.5	5.36**
Personality / Behaviour	3.81 (1.99)	4.75 (1.81)	13.34***
Inflated self-esteem	20.9	33.6	4.49**
Physically Aggressive	59.1	71.8	3.94**
Tantrums	47.3	61.8	4.69**
Short attention span	70.0	66.4	.335
Poor frustration tolerance	78.2	87.3	3.18
Inadequate guilt feelings	48.2	75.5	17.33***
Verbally aggressive	57.3	78.2	11.00***
Strength	9.1	7.3	.242
Attitudes / Orientation	1.89 (1.53)	2.94 (1.14)	32.99***
Antisocial attitudes	61.8	97.3	42.49***
Not seeking help	34.5	60.0	14.30***
Actively rejecting help	13.6	30.0	8.63***
Defies authority	48.2	82.7	29.03***
Callous, little concern	30.9	23.6	1.47
Strength	34.5	5.5	29.09***

Note. *N*s range from 209 – 220 due to missing data

\*\*  $p < .05$ . \*\*\*  $p < .01$ .

Table 6  
 Logistic Regression Analysis of Offender Status as a Function of 8 YLS-CMI Predictor Scales

Variable	B	Standard Error	Wald	Odds Ratio Exp (B)	Overall Classification
					68%
Prior & Current Offences	.005	.13	.001	1.01	
Family / Parenting	.06	.12	.27	1.06	
Education / Employment	-.02	.13	.03	.98	
Peer Relations	-.48	.19	6.57**	.62	
Substance Abuse	-.24	.13	3.53	.79	
Leisure / Recreation	.20	.17	1.31	1.21	
Personality / Behaviour	.05	.12	.17	1.06	
Attitudes / Orientation	-.46	.49	7.90***	.63	

$N = 218$

\*\*  $p < .05$ .     \*\*\*  $p < .01$ .

Table 7  
 Logistic Regression Analysis of Offender Status as a Function of Sequentially Added YLS-CMI  
 Predictors in Order of Block Entry

Scale Variable – Significant Predictors	B	Standard Error	Wald	Odds Ratio Exp (B)	Chi- Square	Overall Classific'n
Step 1 ATTITUDES -					72.55***	72%
Procrime Attitudes	-2.69	.68	15.828***	.068		
No Seek Help	-.67	.34	3.89**	.510		
Callous	1.34	.36	13.83***	3.84		
Step 2 NEG. PEERS -					21.63***	78%
Procrime Attitudes	-2.054	.73	7.95***	.128		
Callous	1.36	.40	11.31***	3.89		
Delinquent Friends	-1.44	.39	13.99***	.236		
Step 3 PERSONALITY -					6.42	78%
Procrime Attitudes	-2.06	.75	7.44***	.128		
Callous	1.65	.47	12.17***	5.19		
Delinquent Friends	-1.41	.40	12.54***	.245		
Step 4 FAMILY -					9.34	78%
Procrime Attitudes	-2.18	.80	7.36***	.114		
Callous	1.70	.50	11.74***	5.49		
Delinquent Friends	-1.35	.42	10.46***	.258		
Step 5 PRIOR OFFENCE					5.12	79%
Procrime Attitudes	-1.86	.82	5.11**	.156		
Callous	-1.70	.53	10.40***	5.46		
Delinquent Friends	-1.34	.45	8.90***	.262		
Step 6 EDUCATION					20.27***	84%
Procrime Attitudes	-1.98	.91	4.72**	.139		
Callous	1.73	.59	8.45***	5.62		
Delinquent Friends	-1.30	.50	6.76***	.272		
Physically Aggressive	-1.49	.61	6.02**	.226		
Inadequate Guilt	-1.08	.53	4.05**	.341		
Inconsistent Parenting	1.58	.68	5.36**	4.87		
Schoolyard Disruption	1.50	.58	6.71***	4.50		
Truant	-1.36	.49	7.73***	.258		
Step 7 LEISURE					3.44	84%
Procrime Attitudes	-2.14	.92	5.42**	.118		
Callous	1.88	.61	9.55***	6.52		
Delinquent Friends	-1.47	.52	7.96**	.230		
No Positive Friends	-1.36	.63	4.64**	.256		
Physically Aggressive	-1.76	.66	7.05***	.172		
Inconsistent Parenting	1.56	.70	4.89**	4.74		
Current Convictions	-1.04	.46	5.05**	.353		
Schoolyard Disruption	1.48	.59	6.30**	4.38		
Truant	-1.35	.49	7.53***	.258		

N = 218

\*\*  $p < .05$ . \*\*\*  $p < .01$ .

Table 8

Logistic Regression Analysis of Offender Status as a Function of Sequentially Added YLS-CMI Predictors in Order of Block Entry – Final Model

Scale Variable – Significant Predictors	B	Standard Error	Wald	Odds Ratio Exp (B)	Chi-Square	Overall Classific'n
Step 8 Substance Abuse					12.92**	85%
Procrime Attitudes	-2.09	.96	4.77**	.124		
Callous	2.15	.65	10.93***	8.56		
Delinquent Friends	-1.21	.55	4.89**	.299		
No Positive Acquaint.	1.04	.52	3.96**	2.84		
Physically Aggressive	-1.89	.69	7.52***	.150		
Inadequate Guilt	-1.29	.60	4.60**	.275		
Inconsistent Parenting	1.52	.77	3.87**	4.59		
Poor Dad Relations	-1.07	.53	4.06**	.343		
Current Convictions	-1.12	.50	4.97**	.327		
Schoolyard Disruption	1.74	.63	7.66***	5.67		
Truant	-1.36	.53	6.71***	.256		
Chronic Alcohol	2.41	.88	7.49***	11.09		
Early Sexualized Behav.	3.48	.74	21.98***	32.45		87%

N = 218

\*\*p < .05. \*\*\*p < .01.

Table 9  
Percentage of Sexual Recidivists and Nonrecidivists with Item Present on ERASOR

Variable	Recidivists Percent / Mean( <i>SD</i> ) <i>N</i> = 39	Non-recidivists Percent / Mean( <i>SD</i> ) <i>N</i> = 71	<i>r</i>	$\chi^2 /$ <i>F</i> -ratio
ERASOR Total Score	17.98 (4.32)	14.83 (2.98)	.37	16.65***
Sex Int., Att., Behav. Score	3.45 (.85)	2.69 (1.25)	.32	11.90***
Deviant Sexual Interests	95%	70%	.30	9.70***
Obsessive Thought	95%	78%	.23	5.67**
Supporting Attitudes	85%	81%	.05	.30
Unwilling to Alter	72%	52%	.20	4.23**
Historical Characters Score	4.90 (2.16)	3.76 (2.16)	.25	7.12***
Two Victims or More	73%	51%	.21	4.68**
Same Victim Assaulted	49%	54%	-.05	.31
Prior Adult Sanctions	63%	34%	.27	8.20***
Threaten or Weapon Used	35%	29%	.06	.51
Sexually Assault a Child	95%	74%	.26	7.34***
Sex Assault a Stranger	13%	2.9%	.19	3.97**
Indiscriminate Victims	55%	30%	.25	6.68***
Ever Male Victims	43%	37%	.05	.31
Diverse offences	73%	61%	.12	1.51
Psychosocial Function Score	4.53 (1.50)	3.83 (1.68)	.21	4.73**
Antisocial Orientation	75%	53%	.22	5.24**
Lack of Intimate Peers	93%	86%	.10	1.13
Negative Peer Association	55%	43%	.12	1.51
Interpersonal Aggression	65%	53%	.12	1.53
Recent Anger Escalation	80%	81%	-.02	.03
Impulsivity	85%	69%	.18	3.62
Family / Environment Score	3.25 (.74)	2.77 (1.07)	.24	6.31**
High Stress Family	98%	86%	.19	3.93**
Problem Parent Relations	80%	76%	.05	.27
Parents No Support	60%	49%	.11	1.33
Supporting Environment	88%	70%	.19	4.32**
Treatment Score	1.85 (.36)	1.83 (.48)	.02	.06
No strategy/prevent plan	98%	91%	.12	1.58
Incomplete Treatment	90%	91%	-.02	.06

*N* is based on 110 sexual offenders

\*\*  $p < .05$ .   \*\*\*  $p < .01$ .

Table 10  
 Percentage of Sexual Recidivists and Nonrecidivists with Item Present on YLS-CMI

Variable	Recidivists Percent / Mean ( <i>SD</i> ) <i>N</i> = 39	Nonrecidivists Offender Percent / Mean ( <i>SD</i> ) <i>N</i> = 71	<i>r</i>	$\chi^2$ / <i>F</i> -ratio
YLS-CMI Total Score	20.78 (7.48)	16.21 (8.94)	.25	7.42 ***
Prior Offences / Dispositions	1.27 (1.50)	.67 (1.07)	.23	6.07**
Three+ prior convictions	20%	10%	.14	2.16
Two+ prior failures comply	7.5%	5.7%	.04	.136
Prior probation	45%	20%	.27	7.71***
Prior custody	20%	8.6%	.17	2.99
Three+ current convictions	35%	22%	.15	2.28
Family / Parenting	3.95 (1.43)	3.39 (1.78)	.16	2.93
Inadequate supervision	80%	56%	.24	6.56***
Difficult control behaviour	65%	54%	.10	1.20
Inappropriate discipline	53%	46%	.07	.469
Inconsistent parenting	88%	84%	.04	.212
Poor relations – father	64%	51%	.13	1.91
Poor relations – mother	45%	47%	-.02	.047
Strength	3%	19%	-.23	5.92**
Education / Employment	4.08 (1.80)	3.28 (1.96)	.20	4.46**
Disruptive classroom beh	83%	59%	.24	6.19**
Disruptive schoolyard beh	65%	49%	.15	2.53
Low achievement	78%	61%	.10	1.10
Problems w peer relations	83%	71%	.13	1.79
Problems w teachers	50%	44%	.06	.434
Truancy	40%	32%	.08	.734
Unemployed/not seeking	10%	4.3%	.11	1.35
Strength	15%	25%	-.11	1.41
Peer Relations	2.05 (.96)	1.81 (1.18)	.10	1.15
Delinquent acquaintances	53%	41%	.11	1.26
Delinquent friends	28%	26%	.02	.042
No positive acquaintances	55%	57%	-.02	.048
No positive friends	70%	57%	.13	1.78
Strength	15%	24%	-.11	1.33

*N* is based on 110 sexual offenders

\*\**p* < .05.      \*\*\**p* < .01.

Table 10 cont'd  
 Percentage of Sexual Recidivists and Nonrecidivists with Item Present on YLS-CMI

Variable	Recidivists Percent / Mean ( <i>SD</i> ) <i>N</i> = 39	Nonrecidivists Offender Percent / Mean ( <i>SD</i> ) <i>N</i> = 71	<i>r</i>	$\chi^2$ / <i>F</i> -ratio
Substance Abuse	.75 (1.41)	.56 (1.03)	.08	.678
Occasional drug use	25%	26%	-.01	.007
Chronic drug use	15%	4.3%	.19	3.89
Chronic alcohol use	13%	9.0%	.06	.437
Substance interferes	13%	11%	.02	.028
Substance linked to offence	10%	5.7%	.08	.693
Strength	65%	73%	-.08	.748
Leisure / Recreation	1.98 (1.12)	1.37 (1.05)	.26	7.99***
Limited participation	73%	56%	.17	3.04
Better use of time	80%	64%	.17	2.99
No personal interests	45%	17%	.30	9.96***
Strength	30%	44%	-.14	2.18
Personality / Behaviour	4.28 (1.66)	3.54 (2.12)	.18	3.53
Inflated self-esteem	20%	21%	-.02	.031
Physically Aggressive	73%	51%	.21	4.68**
Tantrums	58%	41%	.16	2.64
Short attention span	78%	66%	.12	1.68
Poor frustration tolerance	83%	76%	.08	.687
Inadequate guilt feelings	55%	44%	.10	1.17
Verbally aggressive	63%	54%	.08	.702
Strength	5%	11%	-.11	1.27
Attitudes / Orientation	2.30 (1.45)	1.66 (1.54)	.20	4.62**
Procriminal attitudes	75%	53%	.21	4.63**
Not seeking help	38%	33%	.05	.243
Actively rejecting help	23%	8.6%	.20	4.19**
Defies authority	45%	55%	.18	3.52
Callous, little concern	35%	29%	.07	.493
Strength	20%	43%	-.23	5.88**

*N* is based on 110 sexual offenders

\*\*  $p < .05$ .   \*\*\*  $p < .01$

Table 11  
 Relationships between Other (Identifiers, Background, Assessment Scores) Dichotomous Predictors, Sexual Recidivism, Violent Recidivism

Variable	Sexual Recidivism <sup>a</sup>			Violent Recidivism <sup>b</sup>		
	ROC (SE)	r/rho <sup>c</sup>	$\chi^2$	ROC (SE)	r/rho <sup>c</sup>	$\chi^2$
<b>Dichotomous</b>						
Residence		-.04	.02		.12	3.33
Parental Status		.01	1.77		.04	3.38
SES		-.11	1.24		.03	4.53
Attending School		.17	6.91		.10	5.58
Type School Program		.28***	6.95**		-.04	10.06***
Education Identification		.15	5.70		.11	4.38
Male + Female Victims		.22**	7.10***		.20***	7.64***
Both Child + Peer Victims		.11	2.40		.10	2.09
Related + Unrelated Victims		.14	3.25		.07	1.91
Familiar + Stranger Victims		.16	4.18**		.07	0.30
Ever a Child Victim		.28***	6.76***		-.11	2.38
Ever a Male Victim		.07	.32		.15**	0.53
Ever a Peer Victim		-.08	.25		.19***	2.58
Ever a Stranger Victim		.15	1.88		.05	0.13
Early Sex Behaviour		.16	3.89**		-.10	0.59
Early Behaviour		.25***	5.79**		.13	5.48**
Sexual Abuse		.13	1.56		-.03	0.02
Physical Abuse		.02	.06		-.05	0.51
Neglect		.01	.09		.09	0.01
<b>Non-Dichotomous</b>						
Age	.468 (.058)	-.04		.466 (.040)	-.07	
Grade	.523 (.057)	.03		.397 (.039)**	-.18***	
ERASOR Total Score	.713 (.048)***	.37***		.639 (.038)***	.24***	
ERASOR Risk Score		.38***	14.33***		.23***	9.60***
Sexual Attitudes	.682 (.051)***	.32***		.562 (.040)	.09	
Historical Characteristics	.646 (.055)**	.25***		.593 (.041)**	.16**	
Psychosocial Functioning	.626 (.055)**	.21**		.659 (.036)***	.31***	
Family / Environment	.621 (.053)**	.24**		.513 (.040)	.03	
Treatment	.493 (.057)	.02		.520 (.040)	.08	
YLS-CMI Total Score	.661 (.053)***	.25***		.662 (.037)***	.27***	
YLS-CMI Risk Score		.23**	9.53**		.29***	26.25***
Prior Offences	.602 (.059)	.23**		.605 (.040)***	.18***	
Family / Parenting	.600 (.055)	.16		.554 (.040)	.11	
Education / Employment	.616 (.055)**	.20**		.659 (.037)***	.28***	
Peer Relations	.568 (.055)	.10		.668 (.036)***	.30***	
Substance Abuse	.519 (.058)	.08		.554 (.041)	.08	
Leisure / Recreation	.658 (.056)***	.26***		.560 (.040)	.11	
Personality / Behaviour	.599 (.054)	.18		.662 (.038)***	.27***	
Attitudes / Orientation	.623 (.055)**	.20**		.656 (.037)***	.28***	

N is based on 220 offenders

<sup>a</sup> N = 39    <sup>b</sup> N = 79    <sup>c</sup> two-tailed

\*\* p < .05    \*\*\* p < .01

Table 12  
 Relationships between Other (Identifiers, Background, Assessment Scores) Dichotomous Predictors, Nonviolent Recidivism, Any Recidivism

Variable	Nonviolent Recidivism <sup>a</sup>			Any Recidivism <sup>b</sup>		
	ROC (SE)	r/rho <sup>c</sup>	$\chi^2$	ROC (SE)	r/rho <sup>c</sup>	$\chi^2$
<b>Dichotomous</b>						
Residence		-.12	2.42		.02	0.24
Parental Status		.05	2.76		.09	4.80
SES		-.04	1.25		-.06	2.38
Attending School		.02	1.52		.13	5.05
Type School Program		.07	1.66		.19***	7.09**
Education Identification		.03	1.91		.18**	6.22
Male + Female Victims		n/a	n/a		.17**	3.51
Both Child + Peer Victims		n/a	n/a		.10	1.25
Related + Unrelated Victims		n/a	n/a		.11	2.91
Familiar + Stranger Victims		n/a	n/a		.04	0.03
Ever a Child Victim		n/a	n/a		.00	0.06
Ever a Male Victim		n/a	n/a		-.03	1.83
Ever a Peer Victim		n/a	n/a		-.05	1.02
Ever a Stranger Victim		n/a	n/a		-.02	0.09
Early Sex Behaviour		-.10	1.23		.09	1.80
Early Behaviour		.02	0.38		.26***	9.67***
Sexual Abuse		-.10	1.39		.07	0.56
Physical Abuse		.17**	4.62**		.10	0.33
Neglect		-.06	2.01		.01	1.59
<b>Non-Dichotomous</b>						
Age	.540 (.050)	.05		.446 (.043)	-.08	
Grade	.508 (.048)	-.00		.419 (.045)	-.15**	
ERASOR Total Score	.406 (.052)	-.13		.674 (.041)***	.28***	
ERASOR Risk Score		-.16	4.45		.29***	7.46**
Sexual Interests, Att., Beh.	.500 (.050)	.02		.654 (.042)***	.26***	
Historical Characteristics				.569 (.040)	.11	
Psychosocial Functioning	.513 (.050)	.05		.670 (.045)***	.37***	
Family / Environment	.568 (.048)	.10		.614 (.044)***	.21***	
Treatment	.455 (.054)	-.14		.476 (.042)	-.05	
YLS-CMI Total Score	.542 (.049)	.08		.720 (.041)***	.38***	25.16***
YLS-CMI Risk Score		.08	6.67		.39***	
Prior Offences	.589 (.049)	.09		.690 (.037)***	.30***	
Family / Parenting	.572 (.049)	.10		.639 (.045)***	.24***	
Education / Employment	.464 (.048)	-.03		.675 (.042)***	.31***	
Peer Relations	.533 (.053)	.05		.657 (.042)***	.27***	
Substance Abuse	.662 (.050)***	.23***		.626 (.039)***	.22***	
Leisure / Recreation	.541 (.051)	.06		.654 (.040)***	.25***	
Personality / Behaviour	.476 (.050)	-.02		.664 (.042)***	.29***	
Attitudes / Orientation	.519 (.050)	.04		.681 (.041)***	.31***	

N is based on 220 offenders.

<sup>a</sup> N = 38      <sup>b</sup> N = 156      <sup>c</sup> two-tailed

\*\* p < .05      \*\*\* p < .01

Table 13  
Kaplan-Meier Survival Curve Differences Between Comparison Groups

Variable	Mean (months)	Median	Mean St'd Error	95% C.I.	$\chi^2$	Recidivism Rate
Any Recidivism					5.16**	
Sexual Offender	69.72	47.50	6.03	57.91 – 81.53		62%
Nonsexual Offender	50.90	31.00	4.75	41.59 – 60.20		81%
Violent Recidivism					25.68***	
Sexual Offender	121.56	n/a	6.98	107.89 – 135.23		17%
Nonsexual Offender	67.98	53.00	5.80	56.91 – 79.34		54%
Nonviolent Recidivism					9.74***	
Sexual Offender	136.67	n/a	5.95	125.00 – 148.34		9%
Nonsexual Offender	104.88	n/a	6.58	91.97 – 117.78		25%
Sexual Recidivism	96.57	n/a	7.13	82.59 – 110.55		35%
Violent Nonsexual Recid	66.75	53.00	6.90	53.22 – 80.27		64%
Nonviolent Recidivism	66.02	58.00	10.11	46.21 – 85.83		49%
Victim Relat'n to Sex Offender					5.62*	
All Intra-familial	103.95	n/a	10.71	82.96 – 124.94		26%
All Extra-familial	97.85	97.00	10.10	78.05 – 117.65		36%
Mixed Intra and Extra	71.00	49.50	14.44	42.70 – 99.31		50%

*N* based on 220 offenders

\* $p < .06$ .    \*\* $p < .05$ .    \*\*\* $p < .01$ .

Table 14

## Kaplan-Meier Survival Curve Differences Between Comparison Groups for Two Measures

Variable	Mean (months)	Media n	Mean Std Error	95% C.I.	$\chi^2$	N	Recid Rate
ERASOR – Sex Recid.					14.33***		
Low Risk (0-14)	151.10	n/a	5.77	139.79 – 162.42		30	3%
Moderate Risk (15-19)	77.94	79.00	7.94	62.37 – 93.50		56	45%
High Risk (20-25)	68.24	40.00	12.98	42.81 – 93.68		24	54%
YLS-CMI Sex Recidivism					9.53**		
Low Risk (0-8)	130.87	n/a	10.71	109.88 – 151.85		20	10%
Moderate Risk (9-26)	93.45	82.00	8.84	76.12 – 110.78		69	38%
High Risk (27-34)	46.68	49.50	7.46	32.07 – 61.30		19	58%
Very High Risk (35-42)	n/a <sup>a</sup>					2	0%
ERASOR – Violent Recid.					9.60***		
Low Risk (0-14)	128.26	n/a	9.75	109.14 – 147.38		47	15%
Moderate Risk (15-19)	84.15	76.00	6.17	72.06 – 96.24		115	38%
High Risk (20-25)	76.51	62.00	8.77	59.31 – 93.70		58	48%
YLS-CMI – Violent Recid.					26.25***		
Low Risk (0-8)	138.57	n/a	8.12	122.65 – 154.49		23	4%
Moderate Risk (9-26)	97.28	103.50	6.43	84.68 – 109.88		138	33%
High Risk (27-34)	63.23	53.00	7.42	48.69 – 77.76		50	52%
Very High Risk (35-42)	35.11	9.00	16.90	1.99 – 68.23		9	66%
ERASOR – Any Recid.					7.46**		
Low Risk (0-14)	86.83	65.00	10.71	65.84 – 107.82		47	45%
Moderate Risk (15-19)	55.21	35.50	4.66	46.07 – 64.35		115	77%
High Risk (20-25)	50.49	36.00	6.58	37.60 – 63.39		58	83%
YLS-CMI Any Recidivism					25.16***		
Low Risk (0-8)	125.80	n/a	11.24	103.76 – 147.84		23	13%
Moderate Risk (9-26)	60.61	40.00	4.92	50.96 – 70.26		138	73%
High Risk (27-34)	43.86	36.00	5.27	33.52 – 54.20		50	90%
Very High Risk (35-42)	25.78	8.50	12.58	1.13 – 50.43		9	89%
ERASOR – Nonviolent					4.45		
Low Risk (0-14)	107.14	n/a	11.22	85.14 – 129.14		47	28%
Moderate Risk (15-19)	116.69	n/a	5.71	105.50 – 127.88		115	17%
High Risk (20-25)	128.69	n/a	7.75	113.49 – 143.89		58	10%
YLS-CMI – Nonviolent					6.67 <sup>b</sup>		
Low Risk (0-8)	n/a <sup>a</sup>					23	0%
Moderate Risk (9-26)	119.04	n/a	6.17	106.94 – 131.14		138	20%
High Risk (27-34)	114.23	n/a	7.84	98.88 – 129.59		50	16%
Very High Risk (35-42)	88.17	n/a	23.00	43.09 – 133.24		9	22%

N based on 220 offenders

<sup>a</sup> = events all censored<sup>b</sup>  $p = .0556$ \*\*  $p < .05$  \*\*\*  $p < .01$

Table 15

## Cox Regression Analysis of Five ERASOR Scales and Items as a Function of Sexual Recidivism

Covariate	<i>B</i>	Wald	Risk Ratio
Sexual Interests, Att., Beh	0.448	6.21**	1.57
Historical Characteristics	0.101	1.37	1.11
Psychosocial Functioning	0.095	0.59	1.09
Family / Environment	0.403	4.66**	1.50
Treatment	-0.445	1.11	0.64
Early Behaviour Acting	0.831	3.95**	2.30
Deviant Sexual Interests	2.25	7.75***	9.50
Sex Assault 2 Victims	-1.37	5.93**	.2526
Sex Assault Same Vic	-.7462	4.36**	.4742
Sex Assault a Stranger	1.05	3.54 <sup>a</sup>	2.86
Indiscriminate Victims	1.38	8.16**	3.99
High Stress Family	1.79	2.97 <sup>b</sup>	5.97
Environment Supporting	1.28	5.44**	3.59
Incomplete Treatment	-1.24	4.42**	.2883

N = 109      <sup>a</sup>  $p = .068$ .      <sup>b</sup>  $p = .058$ .

\*\*  $p < .05$ .      \*\*\*  $p < .01$ .

Table 16

## Cox Regression Analysis of 8YLS-CMI Scales and Items as a Function of Sexual Recidivism

Covariate	B	Wald	Risk Ratio
Prior Offences	.224	4.04**	1.25
Family / Parenting	.803	.467	1.08
Education / Employment	.062	.179	1.06
Peer Relations	-.144	.492	.866
Substance Abuse	-.089	.409	.915
Leisure / Recreation	.283	2.94 <sup>a</sup>	1.33
Personality / Behaviour	-.046	.090	.955
Antisocial Attitudes	.092	.358	1.07
Prior Probation	.726	5.08**	2.07
Inadequate Support	.675	2.85 <sup>b</sup>	1.96
No Personal Interests	.658	4.02**	1.93

N = 107      <sup>a</sup>  $p = .064$ .<sup>b</sup>  $p = .059$ .\*\*  $p < .05$ .

Table 17

Logistic Regression of ERASOR and YLS-CMI Scales Combined as a Function of Sexual Recidivism, Nonsexual Violent Recidivism and Any Recidivism

Scales	<i>B</i>	Wald	Odds Ratio Exp (B)	Classification
<b>Sexual Recidivism:</b>				72%
Sexual Deviant Int / Beh	.691	5.23**	2.00	
Family / Environment	.642	4.27**	1.90	
Leisure / Recreation	.486	3.62*	1.63	
<b>Nonsexual Violent Recid</b>				66%
Historical Characteristics	.318	3.90**	1.14	
Psychosocial Function	.482	7.80***	1.62	
Peer Relations	.373	3.93**	1.45	
<b>Any Recidivism</b>				80%
Deviant Interests	.323	4.62**	1.38	
Psychosocial Function	.349	8.91***	1.42	
Prior Offences	.374	4.07**	1.45	

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N = 218

\*  $p < .06$ .    \*\*  $p < .05$ .    \*\*\*  $p < .01$ .

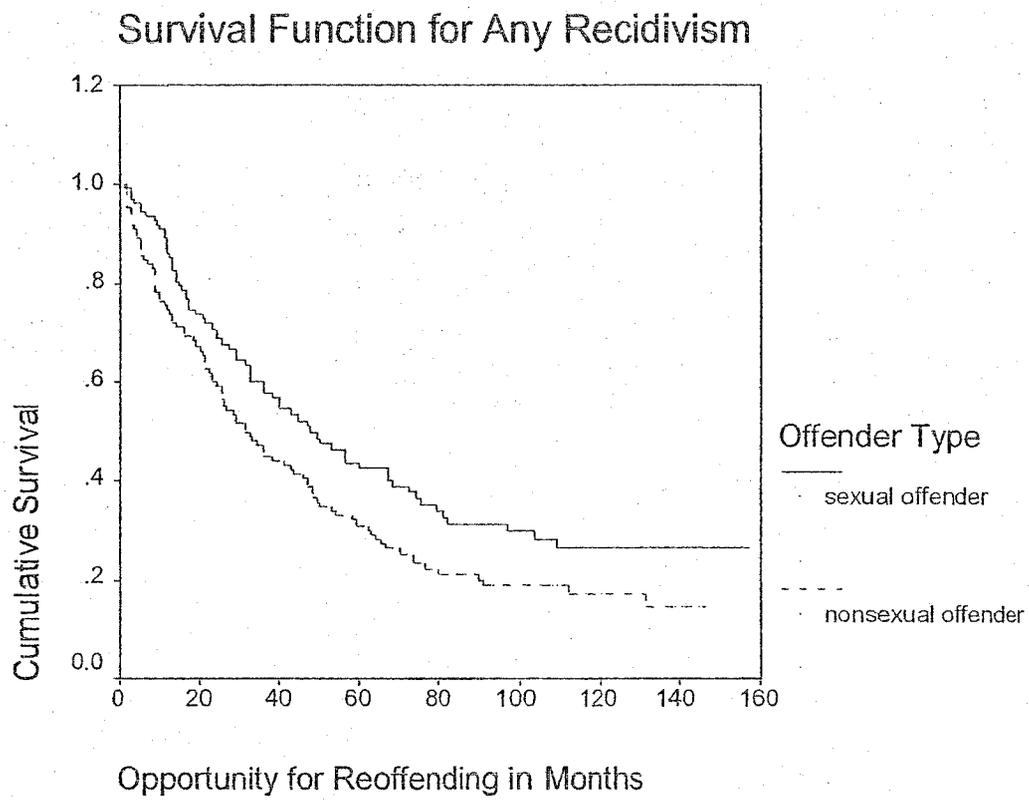


Figure 1 Kaplan-Meier survival curve estimates for any recidivism for offender type

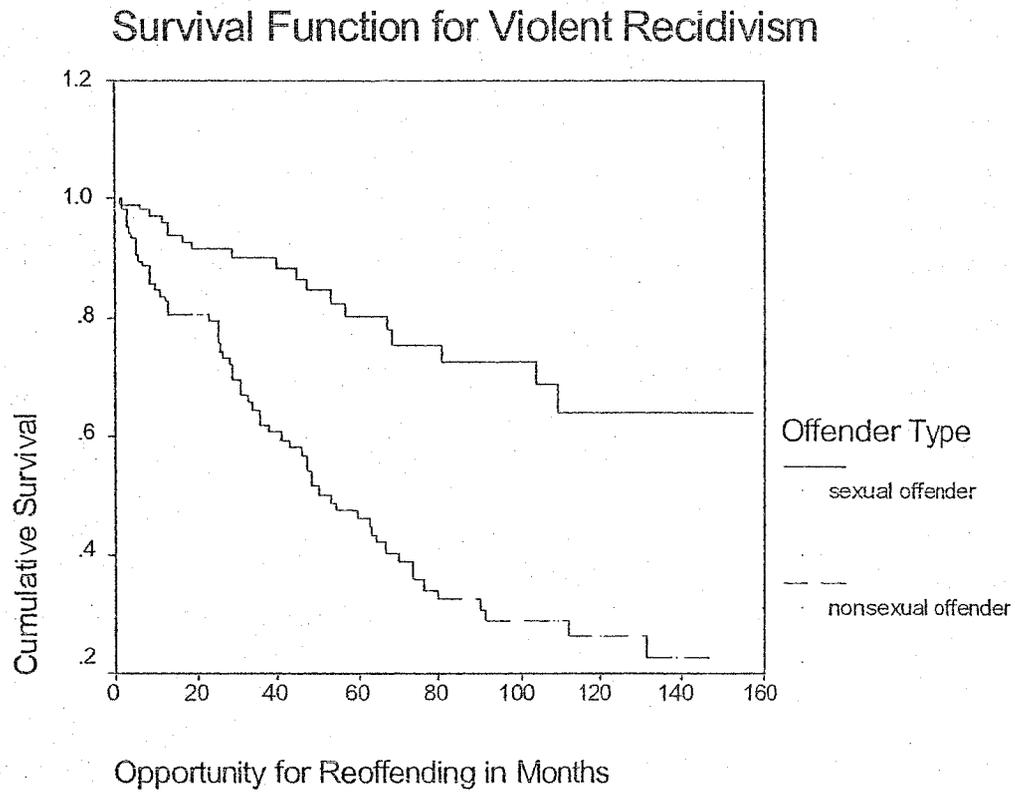


Figure 2 Kaplan-Meier survival curve estimates for violent recidivism for offender type

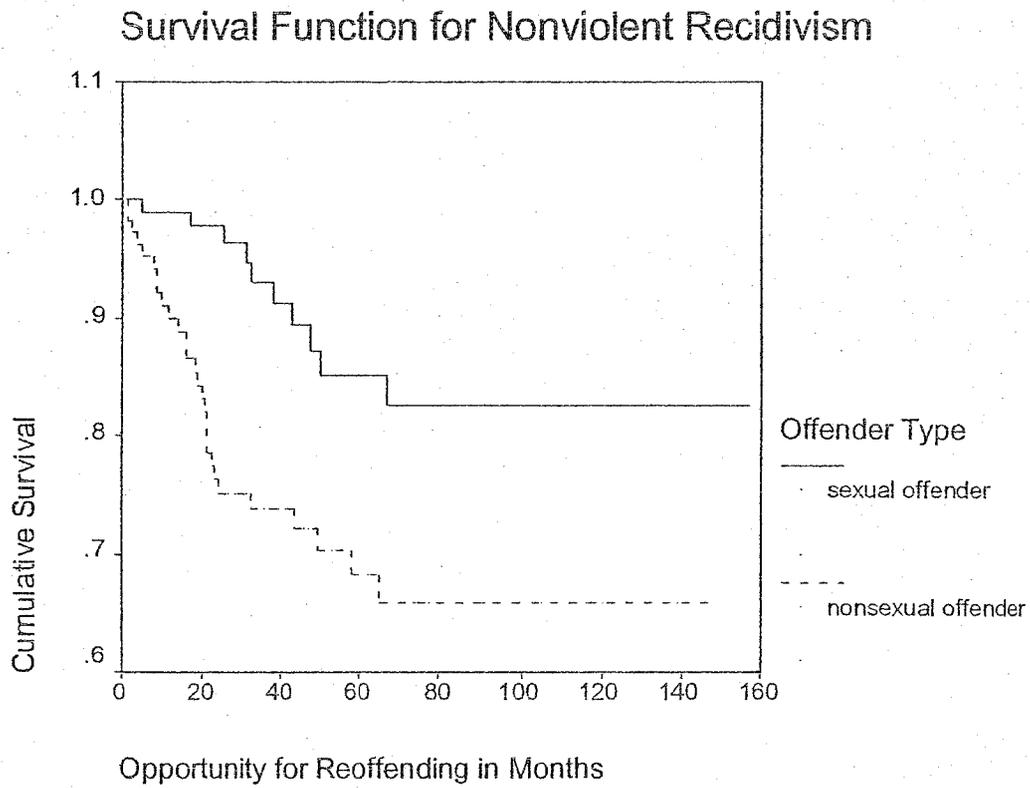


Figure 3 Kaplan-Meier survival curve estimates for nonviolent recidivism for offender type

### Survival Function for Sexual Recidivism

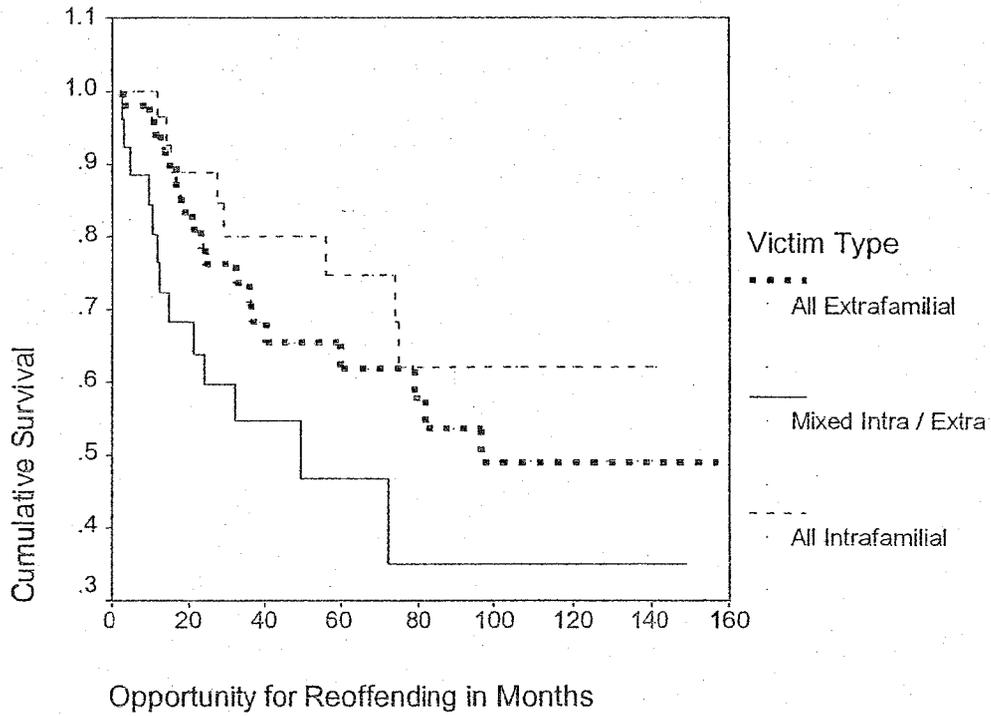


Figure 4 Kaplan-Meier survival curve estimates for sexual recidivism for victim type

### Survival Function for Sexual Recidivism

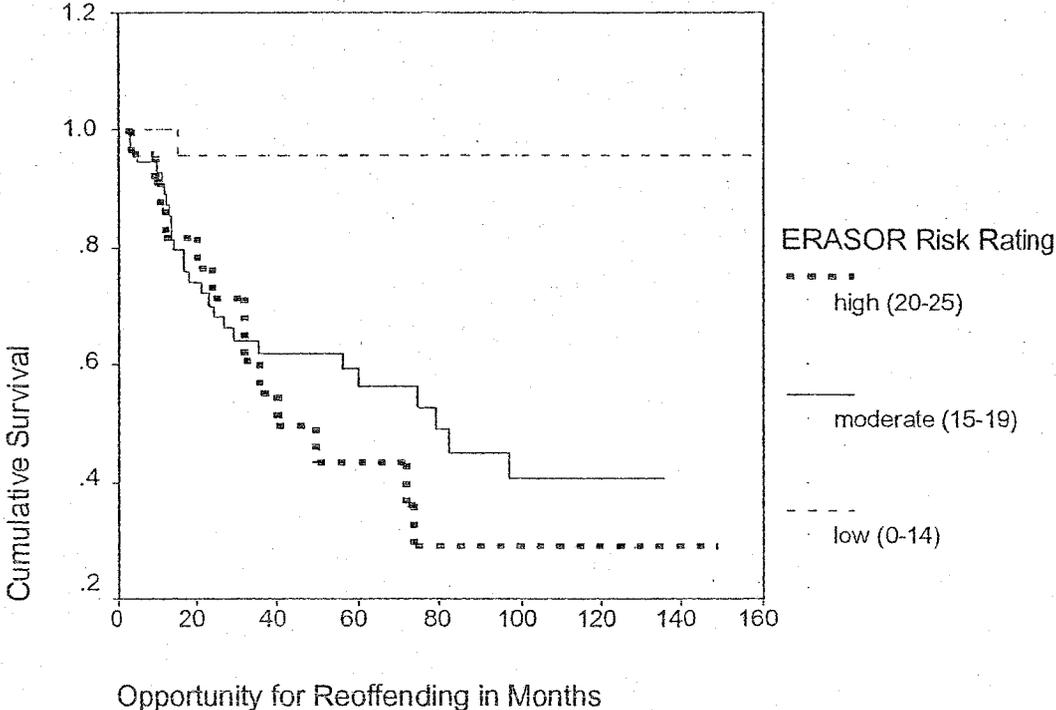


Figure 5 Kaplan-Meier survival curve estimates for sexual recidivism for ERASOR risk rating

### Survival Function for Sexual Recidivism

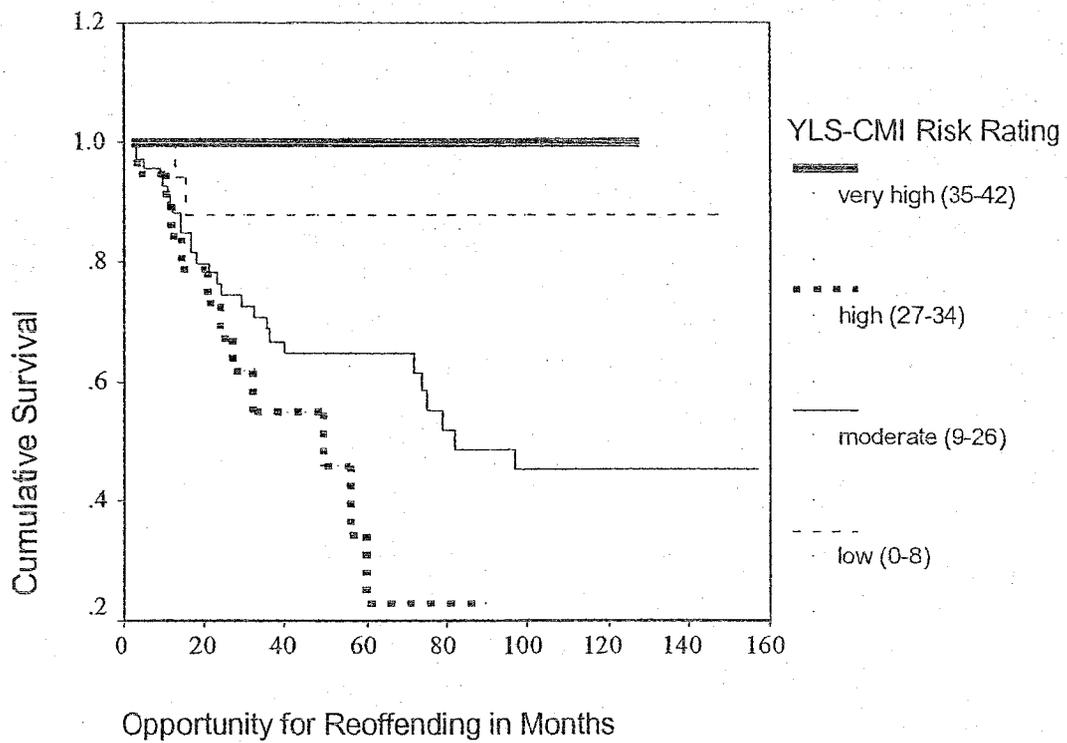


Figure 6 Kaplan-Meier survival curve estimates for sexual recidivism for YLS-CMI risk rating

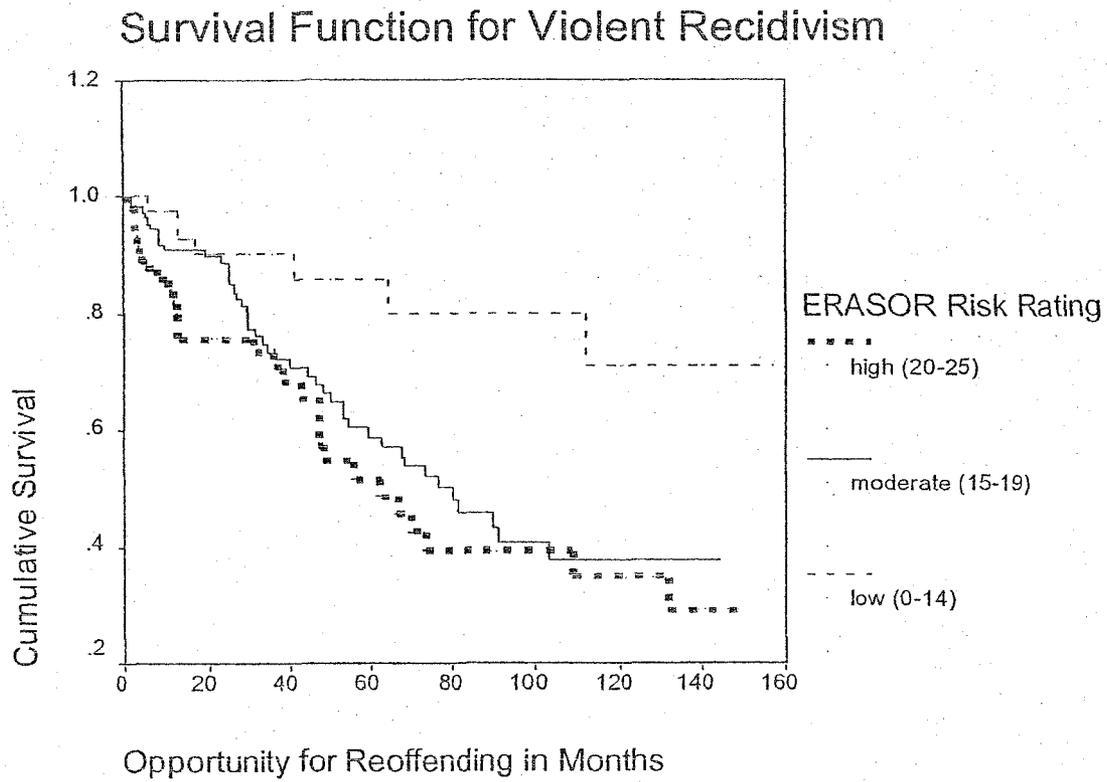


Figure 7 Kaplan-Meier survival curve estimates for violent recidivism for ERASOR risk rating

### Survival Function for Violent Recidivism

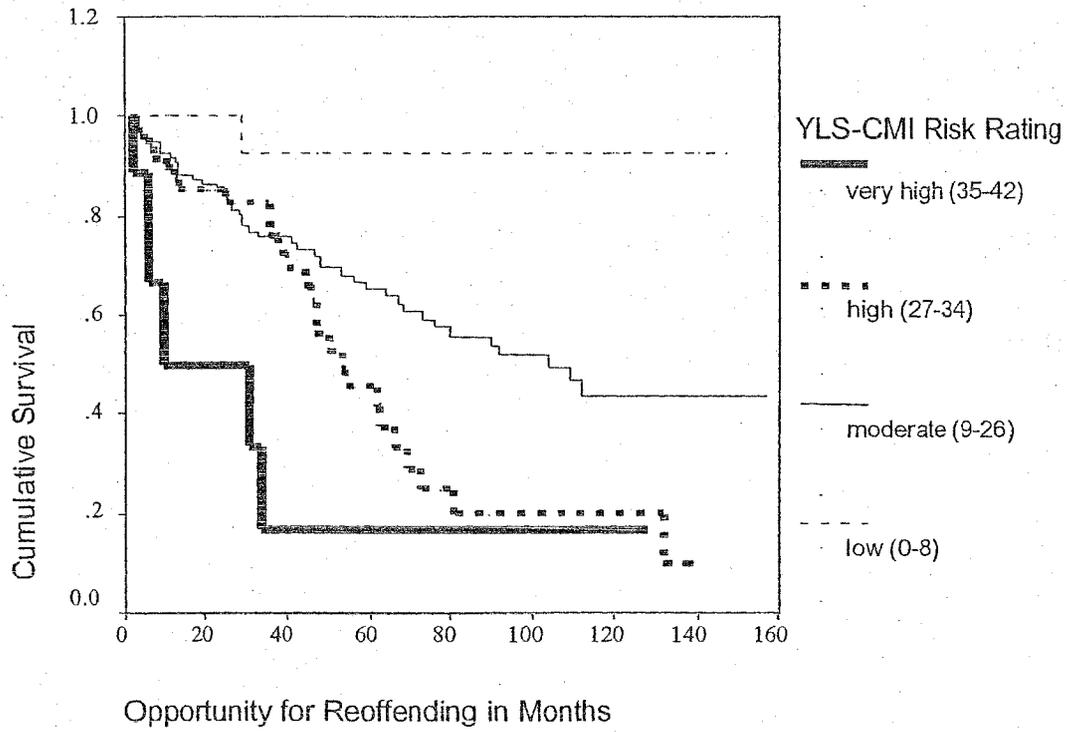


Figure 8 Kaplan-Meier survival curve estimates for violent recidivism for YLS-CMI risk rating

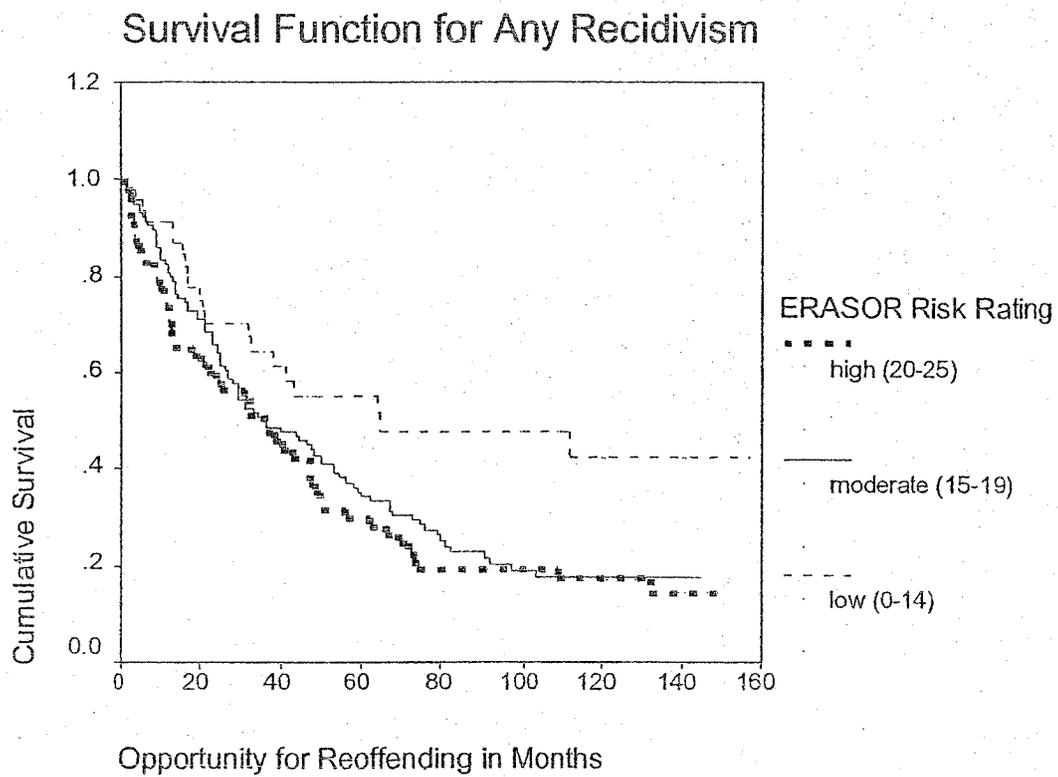


Figure 9 Kaplan-Meier survival curve estimates for any recidivism for ERASOR risk rating

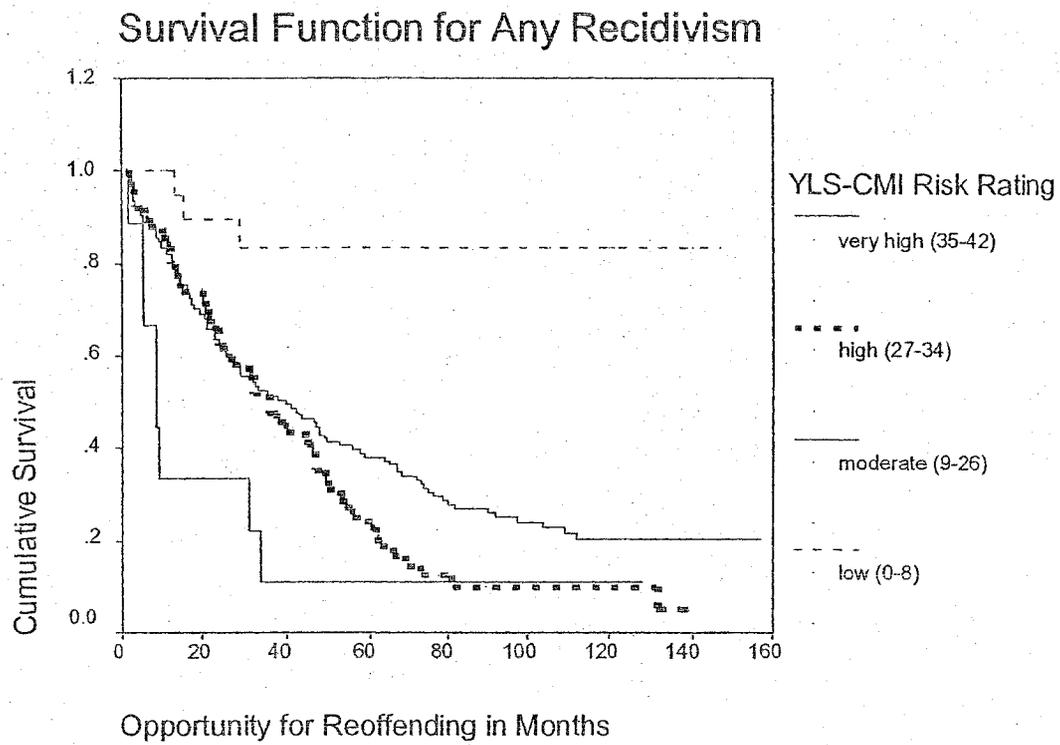


Figure 10 Kaplan-Meier survival curve estimates for any recidivism for YLS-CMI risk rating

Appendix I  
C.S.T. Intake Referral Form

CST # \_\_\_\_\_ YO# \_\_\_\_\_ YOSIS # \_\_\_\_\_

Date of Referral \_\_\_\_\_ Probation Officer \_\_\_\_\_

Date of Birth: \_\_\_\_\_ Date of File: \_\_\_\_\_ Phase 1 \_\_\_\_\_ 2 \_\_\_\_\_

Youth Residence: Home (1) Open Custody (3)  
Foster Home / Group Home (2) Secure Custody (4)

Parental Status: Biological Parents (1) Father / Stepmother (5)  
Single Mother (2) Adoptive Parents (6)  
Single Father (3) Other Family (7)  
Mother / Stepfather (4) CAS Care (8)

Family SES: Mother's Occupation \_\_\_\_\_

Father's Occupation \_\_\_\_\_  
Low (1) High (3)  
Medium (2) Social Assistance (4)

Current Grade: 6 (1) 10 (5) Highest Grade Achieved at  
7 (2) 11 (6) Time of Assessment \_\_\_\_\_  
8 (3) 12 (7)  
9 (4) OAC (8)

Attending School? Yes (1) Suspended (3)  
Dropped Out (2) Expelled (4)

School Program Regular Classroom (1) Special Resources (3)  
Vocational / Technical (2) Section 19 / 27 (4)

Educational Identification None (1) Developmentally Delayed (3)  
Behavioural (2) Learning Disorder (4)

Sexual Offences: #Current Charges \_\_\_\_\_ #Current Convictions \_\_\_\_\_

Previous Sexual Offences: #Past Convictions \_\_\_\_\_ #Inappropriate Sexual Behaviour \_\_\_\_\_

NonSexual Offences: #Current Charges \_\_\_\_\_ #Current Convictions \_\_\_\_\_

Previous NonSexual Offences: #Past Convictions \_\_\_\_\_ Charged Only: \_\_\_\_\_

Reason For Referral:

- 1. Management  (Aid in managing youth's behaviour during YO Disposition)
- 2. Treatment  (To effect changes in youth or relevant aspects of his/her environment to reduce criminal behaviour post-disposition)

- Individual  Family
- GAP Program  Group
- Drama Group  Other

- 3. Reintegration: Family  Independent Living
- 4. Consultation:
- 5. Other: (Specify)

Level of Risk (From Risk Assessment Tool) Copy Enclosed?  
 Low  Moderate  High  Very High

Current Offence(s): Indicate # of offences with check mark in column beside offence description

Offence	#	Offence	#	Offence	#
Theft Under		Possession Over		Fraud	
Theft Over		Mischief Under		Forgery	
Attempt Theft		Mischief Over		Uttering (threatening letters)	
Break & Enter		Auto Offences		Failure to Comply	
Break & Enter /w intent		Arson		Breach of Probation	
Break, Enter, & Theft		Robbery		Breach of Recognizance	
Possession Under		Armed Robbery		Breach of Undertaking	
Assault		Sexual Assault		Traffic	
Assault (B.H.) aggrav		Sexual Assault (B.H.) aggravated		Unlawfully in a Dwelling	
Possessing Weapons Dangerous		Sexual Offences		Truancy	
Homicide		Narcotics		Escape Lawful Custody	
Attempted Homicide		Liquor		Attempt Escape Lawful Custody	
				Unlawfully at Large	

Current Disposition:

Date Start:

Date End:

DISPOSITION		CONDITIONS OF PROBATION	
Absolute Discharge	<input type="checkbox"/>	Report to Probation Officer	<input type="checkbox"/>
Conditional Discharge	<input type="checkbox"/>	Attend Counseling	<input type="checkbox"/>
Fine (not to exceed \$1000)	<input type="checkbox"/>	Attend School	<input type="checkbox"/>
Compensation	<input type="checkbox"/>	Keep Curfew	<input type="checkbox"/>
Restitution	<input type="checkbox"/>	Obey Non-Association Order	<input type="checkbox"/>
Community Service	<input type="checkbox"/>	Order to Reside	<input type="checkbox"/>
Order for Counseling	<input type="checkbox"/>	Not Possess Firearms (5 yrs)	<input type="checkbox"/>
Probation (not to exceed 2 yrs)	<input type="checkbox"/>	Live at Residence Approved by P.O.	<input type="checkbox"/>
Open Custody	<input type="checkbox"/>	Stay off Retail Property	<input type="checkbox"/>
Open Custody/fb/Probation	<input type="checkbox"/>	Stay out of Motor Vehicle	<input type="checkbox"/>
Secure Custody	<input type="checkbox"/>	Community Service	<input type="checkbox"/>
Secure Custody/fb/Probation	<input type="checkbox"/>	Restitution / Compensation	<input type="checkbox"/>
Secure Custody/fb/Open Custody/fb/Probation	<input type="checkbox"/>		

Previous Dispositions(s) Most Recent

# of Previous Dispositions

Absolute Discharge <input type="checkbox"/>	Restitution <input type="checkbox"/>	Probation (not to exceed 2 yrs) <input type="checkbox"/>	Secure Custody <input type="checkbox"/>
Fine (not to Exceed \$1000) <input type="checkbox"/>	Community Service Order <input type="checkbox"/>	Open Custody <input type="checkbox"/>	Secure Custody / fb/Probation <input type="checkbox"/>
Compensation <input type="checkbox"/>	Order for Counseling <input type="checkbox"/>	Open Custody / fb / Probation <input type="checkbox"/>	SecCust/fb/Open Cust/fb/Probation <input type="checkbox"/>

New Charges Pending: \_\_\_\_\_

Youth's Reaction to Referral is: Positive  Negative   
 Has Family Been Informed of Referral? Yes  No   
 Family's Reaction is: Positive  Negative

Additional Information: (Please use this space to provide us with any information that you think may be helpful to our work with this client, eg. Family, school, social information, etc).

## C.S.T. Intake Referral – Part 2

## Youth Problem Areas: (Behavioural)

Violent		Intimidating		Self Abusive	
Destructive		Manipulating		Poor Hygiene	
Sexually Acting Out		Lethargic		Enuretic	
Substance Abuse		Sexually Assaultive		Health Problems (Describe)	
Withdrawn		Compulsive			
Socially Rejected		AWOL			
Steals		Defiant			
Hyperactive		Verbally Aggressive			

## Youth Problem Areas: (Emotional)

Angry / Frustrated		Excessively Guilty	
Anxious / Excessive Worry		Lacks Guilt / remorse	
Volatile / Reactive		Mood Swings	
Sad / Discouraged		Detached / Nonexpressive	
Fearful		Depressed / Despondent	

## Youth Problem Areas: (Cognitive)

Impulsive		Obsessive	
Unrealistic		Narcissistic / Egoentric	
Confused		Defensive	
Bizarre Thoughts		Hopeless	
Omnipotent		Independent	
Suspicious		Dependent	

## Youth's Areas of Strength:

Clever		Popular	
Articulate		Insightful	
Energetic		Reflective	
Creative		Sensitive / empathic	
Sense of Humour		Confident	
Athletic		Receptive	
Personable		Artistic	
Mechanically Inclined			

Other: \_\_\_\_\_

Education: Attending School? Yes  No 

Education History: Grade: \_\_\_\_\_

S.L.D. (Specify)  Section 27 / 19 Special Education  Truant Behavioral Class  Behavioural Problem 

Comments: \_\_\_\_\_

Employed: Yes  No  Full-Time  Part-Time 

Family:

# of Siblings \_\_\_\_\_

Position in Sib-line \_\_\_\_\_

Names: \_\_\_\_\_ Age: \_\_\_\_\_

Living Where: \_\_\_\_\_

Others Living in Home: \_\_\_\_\_

Relationship: \_\_\_\_\_

Significant Other (s): \_\_\_\_\_

Relationship: \_\_\_\_\_

## Problem Areas in Family History:

Problem	Describe	Problem	Describe
Physical Abuse		Death of Family Member	
Sexual Abuse		Chronic Health Issues	
Domestic Violence		Psychiatric Issues	
Substance Abuse		Financial Problems	

Criminal History: Parents <input type="checkbox"/> Sibs <input type="checkbox"/>		Currently Involved With CAS	
Separation / Divorce		Other	

Additional Information: \_\_\_\_\_

Are any of the above family problems seen as a current problem? Yes  No

Comments: \_\_\_\_\_

Cultural / Religious Considerations: \_\_\_\_\_

Family Descriptors (How is the family observed?)

Lack of rules  ←-----→ Authoritarian  
Emotionally Uninvolved  ←-----→ Emotionally Overinvolved  
Poor Problem Solving Skills  ←-----→ Effective Problem Solving Skills  
Chaotic / overwhelmed  ←-----→ Problems acknowledged only in Crises

Financial Background: Is family on Social Assistance Yes  No

Prior Interventions:

Individual Counseling/Psychotherapy Yes  No  Reports available  
  
Group Therapy Yes  No  Reports available  
  
Family Therapy Yes  No  Reports available  
  
Residential Treatment Yes  No  Reports available  
  
C.A.S. (area) Yes  No  Reports available  
  
Family Court Clinic Assessment Yes  No  Reports available  
  
Psychological / psychiatric Assessment Yes  No  Reports available  
  
Educational Assessment Yes  No  Reports available  
  
Family Assessment Yes  No  Reports available

Appendix II  
Notice of Hearing and Disclosure of Records Approval

Casoffile No / N du cas/dossier

**NOTICE OF HEARING / AVIS D'AUDIENCE** TO: Whitby Crowns' Office, Christine Skowron,  
Durham Family Court Clinic

Take notice that the above application will be heard before the Youth Justice Court on the 6th day of May  
Sachez que la demande ci-dessus sera instruite devant le tribunal pour adolescents le 6th jour de May  
yr 2003 at 9:30 a.m. in Courtroom No. 10 850 King Street West, Oshawa  
an à (heures) dans la salle d'audience n° (address of court / adresse du tribunal)

DATED this 24th day of April, yr / an 2003  
FAIT ce jour de

  
Clerk of the Court / Greffier du tribunal

**ORDER / ORDONNANCE**

Upon hearing the within-mentioned application, I hereby order that: PURSUANT TO THE YOUTH CRIMINAL JUSTICE ACT AND THE YOUNG OFFENDERS ACT  
Après instruction de la demande dont j'ai été saisi, j'ordonne :

- The notice requirement is hereby waived.  
qu'il y ait dispense de l'obligation de donner avis;
- Disclosure of the record shall not be made.  
que le dossier ne soit pas divulgué;
- The record or the part thereof noted below shall be made available for inspection and/or  
que le dossier, ou la partie du dossier indiquée ci-après, puisse être consulté(e) et/ou
- A copy of the record or the following part of the record shall be given to the applicant.  
qu'une copie du dossier, ou de la partie indiquée ci-après du dossier, soit remise au(à la) requérant(e)

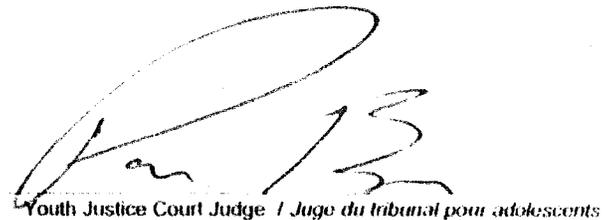
Description of the part of the record to be made available or given to the applicant:  
Description de la partie du dossier pouvant être consultée par le(la) requérant(e) ou devant lui être remise :

A LIST OF OFFENCES AND DATES OF CONVICTION FOR EACH OF THE INDIVIDUALS LISTED IN SCHEDULE 'A' ATTACHED (4 PAGES) HERETO.

The purposes for which the record may be used are as follows:  
Les fins auxquelles le dossier pourra être utilisé sont les suivantes :

FOR PURPOSES OF RESEARCH AND ON THE CONDITION THAT NONE OF THE INDIVIDUALS NAMES ARE USED IN THE PUBLISHED RESEARCH.

Dated this 06<sup>TH</sup> day of MAY, yr / an 2003.  
Fait ce jour de  
at the / à (au) CITY of / de OSHAWA  
in the Province of Ontario / dans la province de l'Ontario

  
Youth Justice Court Judge / Juge du tribunal pour adolescents

MR. JUSTICE P.L. BELLEFONTAINE  
(THE ONTARIO COURT OF JUSTICE)

## Appendix III

## Scoring Key Based on the Estimate of Risk of Adolescent Sexual Offense Recidivism (ERASOR):

Score Description

Yes	-	1	Score if criteria is present
No	-	0	Score if criteria is not present

## Description of Historical Sexual Assaults (VICTIM PROFILE):

1. Adolescent has sexually assaulted 2 or more victims: YES NO  
 Number of Victims: \_\_\_\_\_
2. Adolescent has sexually assaulted the same victim 2 or more times: YES NO
3. Indiscriminate choice of victims: YES NO  
 Adolescent has ever sexually assaulted:
- 1 0 Both male and female victims OR  
 1 0 Both child (under 12 years of age and 4 years younger) and peer/adult victims OR  
 1 0 Both related and unrelated victims OR  
 1 0 Both familiar and stranger victims
4. Ever sexually assaulted a child: YES NO  
 Adolescent has ever sexually assaulted a child victim under 12 years of age and at least 4 years younger than the adolescent
- Offender age: Victim age: Age Difference:  
 Ever assaulted a peer / adult: YES NO  
 Victim age: Age Difference:
5. Ever sexually assaulted a male victim YES NO
6. Ever sexually assaulted a stranger: YES NO  
 Adolescent has ever committed a sexual offense against a stranger. A stranger is considered someone who has known the adolescent for a period of less than 24 hours prior to the sexual offense.

## DESCRIPTION OF SEXUAL ASSAULT

7. Prior adult sanctions for sexual assault: YES NO

At any time prior to the most recent sexual offence, the adolescent was cautioned, warned, disciplined, criminally charged, or otherwise sanctioned by an adult authority (e.g. police, parent, teacher) for a sexual assault

Describe:

8. Threats of, or use of, excessive violence/weapons during sexual offence: YES NO  
During the commission of any past sexual assault, the adolescent has ever:
- 1 0 used excessive physical restraint or aggression beyond that which would be necessary to gain victim compliance, OR  
1 0 used, or threatened to use, a weapon (regardless of whether a weapon was actually present), OR  
1 0 used, or threatened to use, physical violence with the victim or with others important to the victim, such as family members

Describe:

9. Diverse sexual-assault behaviours (more than one+) YES NO

Adolescent has ever attempted or engaged in several different contact and / or noncontact sexual-assault behaviours including but not limited to: circle all that apply:

Exhibitionism	Voyeurism
Obscene phone calling	Stalking
Sexual Touching	Bestiality
Assault with a weapon	Frottage
Oral	Anal
Vaginal penetration	Other

Sexual Interests, Attitudes, and Behaviours

10. Deviant sexual interests (younger children, violence, or both) YES NO  
(SEE #13!!)

- 1 0 At any time within the past 6 months, the adolescent has reported or demonstrated sexual arousal to thoughts/images of children under 12 years of age (and children who are at least 4 years younger than the adolescent), OR  
1 0 Sexual assaults – within the past year – against 2 or more children under 12 years of age (and children who are at least 4 years younger than the adolescent), OR  
1 0 At any time within the past 6 months, the adolescent has reported or demonstrated sexual arousal to sexual violence (excessive physical violence, threats of death or physical pain, use of weapons), OR  
1 0 Sexual assaults – within the past year – against 2 or more individuals that involved excessive physical violence, threats of death or pain, or use of weapons

11. Obsessive sexual interests / Preoccupations with sexual thoughts YES NO

At any time within the past 6 months, the adolescent has demonstrated obsessive sexual interests / preoccupation with sexual thoughts as evidenced by any of the following:

- 1 0 Unusually frequent masturbation

- 1 0 Unusually frequent sexual thoughts, comments, gestures, or behaviours  
 1 0 Unusually frequent use of pornography (or other textual, pictorial, or auditory materials considered erotic by the adolescent)  
 1 0 Unusually frequent engagement in sexual fantasy  
 1 0 Excessive use of sexual behaviours/fantasies to cope with negative affect (boredom, loneliness, frustration, sadness), anger, or problematic situations

Describe:

12. Attitudes supportive of sexual offending YES NO  
 (SEE # 13)  
 At any time within the past 6 months, the adolescent has endorsed any of the following attitudes:
- 1 0 Sexual interactions with children under 12 years of age are not harmful to the child; are desired by the child; are often initiated by children; should be legalized; are just displays of affection; or are educational for the child, OR  
 1 0 Forced sexual interactions with peers or adults are not harmful; are desired; are enjoyable; are initiated by the victim's style of dress or behaviour; or that disclosures of forced sexual interactions are usually fabricated

Describe:

13. Unwillingness to alter deviant sexual interests/attitudes YES NO  
 At any time within the past 6 months, the adolescent has been unwilling to alter or "give up" the:
- 1 0 Deviant sexual interests that were rated as "yes" or "unknown" in #10 OR  
 1 0 Attitudes supportive of sexual offending that were rated as "yes" or "unknown" in #12

Describe:

#### Psychosocial Functioning

14. Antisocial interpersonal orientation (4 or more) YES NO  
 During the past 6 months, the adolescent has exhibited an antisocial interpersonal orientation as evidenced by the presence of 4 or more of the following:
- 1 0 Endorsement of antisocial or pro-criminal attitudes  
 1 0 Defiance of authority figures  
 1 0 Insensitive disrespect for the rights / feelings of others  
 1 0 Selfish / self-centered orientation  
 1 0 Difficulty accepting responsibility for most wrongdoings (not just sexual)  
 1 0 Lack of guilt or remorse for most wrongdoings (not just sexual)  
 1 0 Frequent lying and deception  
 1 0 Inflated sense of self-importance and self-worth  
 1 0 Emotionally unresponsive or emotions that appears "faked"  
 1 0 Frequent violations of rules and laws – in addition to sexual assaults

Describe:

15. Interpersonal aggression YES NO

During the past 6 months, the adolescent has demonstrated a pattern of interpersonal aggression, characterized by a number of verbally or physically abusive behaviours directed towards people

Describe:

16. Negative peer associations and influences YES NO

On more than 1 occasion within the past 6 months, the adolescent has associated with peers who:

- 1 0 Often engage in antisocial / criminal activity, OR  
 1 0 Often use non-prescription drugs and / or alcohol OR  
 1 0 Adolescent frequently engaged in antisocial / criminal behaviours to "fit in" or "belong" with a peer group

Describe:

17. Lack of intimate peer relationships / Social isolation YES NO

At any time within the past 6 months, the adolescent's social relationships have been characterized by:

- 1 0 No emotionally intimate peer relationships (peers are non familial individuals who are within 3 years of age from the adolescent) OR  
 1 0 No close friendships OR  
 1 0 No reliance on a single peer-aged friend OR  
 1 0 Social isolation from peers outside of the regular school day

Describe:

18. Recent escalation in anger or negative affect YES NO

At any time within the past 6 months, the adolescent has demonstrated an escalation in:

- 1 0 Anger (e.g., tantrums, verbal or physical aggression, threats), OR  
 1 0 Negative affect such as depression, anxiety, loneliness, boredom, or frustration

Note: This factor represents ONLY an escalation, or heightening, of anger or negative affect – NOT merely the presence of anger or negative affect

Describe

19. Poor self-regulation of affect / behaviour (Impulsivity) YES NO  
 (3 OR MORE)

During the past 6 months, the adolescent has demonstrated very poor self-regulation of affect and behaviour. Impulsivity is demonstrated by 3 or more of the following:

- 1 0 Frequent difficulty delaying gratification

- 1 0 Frequent difficulty delaying responses ("blurting out answers")
- 1 0 Frequently interrupting others
- 1 0 Frequent failure to listen to instructions or directions
- 1 0 Frequently becoming bored easily with routine
- 1 0 Frequent grabbing or touching things / others without permission
- 1 0 Frequent failure to consider consequences before engaging in activities (particularly potentially dangerous or risky activities)

Describe:

20. High-stress family environment (1 or more) YES NO

At any time within the past 6 months, REGARDLESS of where the adolescent has been living, there has been an extreme level of stress within the family as evidenced by issues such as:

- 1 0 Marked marital discord
- 1 0 Death of a family member
- 1 0 Separation of a family member from family
- 1 0 Major illness of a family member
- 1 0 Significant family change in residence, employment, or income
- 1 0 Poverty
- 1 0 Criminal activity of family member other than adolescent
- 1 0 Sexual or physical victimization within the family (not including the adolescent's index sexual offense)
- 1 0 Highly conflictual family relationship(s) (OTHER THAN offender-parent relationship)

Describe:

21. Problematic parent-offender relationships / Parental rejection YES NO

At any time within the past 6 months, the adolescent has experienced an extremely problematic parent-child relationship as evidenced by:

- 1 0 Adolescent feeling rejected, unloved, or unwanted by a parent(s)
- 1 0 Parent's current use of harsh/punitive verbal or physical discipline
- 1 0 Very low level of parental involvement; particularly if the parent was once more involved in the adolescent's life
- 1 0 Significant parent-child conflict / disagreement

Describe:

22. Parent(s) not supporting sexual-offense-specific assessment / treatment YES NO  
(1 OR MORE)

At any time within the past 6 months, the adolescent's parent(s) has not been supportive of sexual-offense-specific assessment / treatment for their child as evidenced by one or more of the following:

- 1 0 Parental refusal to participate in assessment / treatment
- 1 0 Parental refusal to allow child to participate in assessment / treatment
- 1 0 Parent(s) denies that their child committed the sexual assault despite evidence to the contrary

- 1 0 Parent(s) denies that there is any risk of sexual reoffence  
 1 0 Parent(s) attempts to undermine or minimize the adolescent's sexual-offense-specific assessment / treatment

Describe:

23. Environment supporting opportunities to reoffend sexually YES NO  
 (1 OR MORE)

At the present time-or at any time within the NEXT 6 months- the adolescent is residing in, or often visiting, an environment that supports opportunities to reoffend sexually as evidenced by one or more of the following:

- 1 0 Unsupervised access to potential and / or past victims  
 1 0 Poor monitoring or control of adolescent's whereabouts  
 1 0 Adult denial of adolescent's risk to reoffend sexually  
 1 0 Lack of adult awareness of adolescent's high-risk factor(s)  
 1 0 Easy access to sexual media (pictorial, auditory, or textual)  
 1 0 Exposure to frequent sexual behaviours, gestures, or conversations  
 1 0 Supervising adults who blame the victim(s) for the adolescent's offense(s)

Describe:

24. No development or practice of realistic prevention plans / strategies YES NO  
 During the past 6 months:

- 1 0 The adolescent has not developed a realistic plan to cope with potentially high-risk factors for a sexual reoffence (such as deviant sexual arousal), OR  
 1 0 The adolescent has not practiced realistic strategies to cope with potentially high-risk factors.

NOTE: "realistic" plans/strategies are those that would be considered sensible, practical, and socially acceptable

Describe:

25. Incomplete sexual offence specific treatment YES NO

Adolescent has not yet completed a majority (ie, 75% or more) of the sexual-offence specific treatment goals that were recommended following assessment

Describe:

## Appendix IV

Youth Level of Service – Case Management Inventory  
Item Scoring Key

## Part I: Assessment of Risks and Needs

If item is present, score 1

If item is not present, score 0

## 1. Prior and current offences / dispositions

- a. Three or more prior convictions: check this item if the youth has received three or more convictions prior to the convictions that are currently being dealt with.
- b. Two or more prior failures to comply: these include failure to appear; probation/parole violation; escape from custody; failure to comply with alternative measures; unlawfully at large.
- c. Prior probation: check if the youth has ever been on probation.
- d. Prior custody: check if the youth has even been referred to open or secure custody.
- e. Three or more current convictions: the youth has received three or more convictions for the current dispositions.

Risk Level: Low (0)

Moderate (1-2)

High (3-5)

## 2. Family circumstances / Parenting

- a. Inadequate supervision: check this item if parents leave the youth unattended, are not aware of activities of the youth or in your judgement otherwise exercise inadequate supervision of the youth.
- b. Difficulty in controlling behaviour: parents have problems in exercising control over the youth's behaviour; youth is out of control.
- c. Inappropriate discipline: there is an excessive use of corporal punishment, frequent use of yelling and threats, overly strict rules or otherwise poor disciplinary practices on the part of the parent(s).
- d. Inconsistent parenting: the parent(s) are inconsistent in application of rules or in use of punishment / rewards.
- e. Poor relationship / father-child: there is a particularly hostile or indifferent / uncaring relationship between father and youth (though not necessarily an abusive relationship).
- f. Poor relationship / mother-child: there is a particularly hostile or indifferent / uncaring relationship between mother and youth (though not necessarily an abusive relationship).

Strength: Yes or No

Risk Level: Low (0-2)

Moderate (3-4)

High (5-6)

### 3. Education / Employment

- a. Disruptive classroom behaviour: check item if youth is engaged in acting-out, attention-seeking, defiant or other disruptive behaviours within the classroom setting.
- b. Disruptive schoolyard behaviour: the youth is initiating violent actions, is defiant toward teachers or otherwise disruptive while in the schoolyard.
- c. Low achievement: the youth is currently failing a subject or there are other indications of achievement problems.
- d. Problems with peer relations: there is evidence that the youth is disliked, isolated, withdrawn or there is other evidence of poor peer relations within the school setting.
- e. Problems with teacher relations: check item if there is evidence of significant and continuing problems with his/her teacher.
- f. Truancy: youth is currently missing school days or skipping classes without legitimate excuses.
- g. Unemployed / not seeking employment: youth should have a job but is not seeking employment.

Strength: Yes or No

Risk Level: Low (0)                      Moderate (1-3)                      High (4-7)

### 4. Peer Relations

- a. Some delinquent acquaintances: some of the youth's acquaintances / casual friends are known offenders.
- b. Some delinquent friends: some of the youth's close friends are known offenders.
- c. No or few positive acquaintances: check this item if youth has very few acquaintances / casual friends who are not offenders
- d. No or few positive friends: few or none of the youth's close friends represent positive role models.

Strength: Yes or No

Risk Level: Low (0-1)                      Moderate (2-3)                      High (4)

### 5. Substance Abuse:

- a. Occasional drug use: there is evidence that the youth is an occasional user of an illicit drug.
- b. Chronic drug use: there is evidence that the youth is a regular user of an illicit drug.
- c. Chronic alcohol use: check this item if the youth regularly consumes alcoholic beverages.
- d. Substance use interferes with functioning: drug and / or alcohol use affects the youth's physical or social functioning and / or is associated with antisocial activity.
- e. Substance use linked to offences: there is good reason to believe that the youth's criminal activity is related to drug or alcohol use.

Strength: Yes or No

Risk Level: Low (0)                      Moderate (1-2)                      High (3-5)

## 6. Leisure / Recreation

- a. Limited organized participation: check this item if there is no evidence that the youth participates in sports, clubs or other types of organized positive activities.
- b. Could make better use of time: the youth spends too much time in passive (e.g., television watching) or unconstructive activities (e.g., playing games at arcades).
- c. No personal interests: the youth appears to have no personal interests of a positive nature (e.g., reading, hobbies, sports).

Strength: Yes or No

Risk Level: Low (0)                      Moderate (1)                      High (2-3)

## 7. Personality / Behaviour

- a. Inflated self-esteem: check item if youth thinks he / she is superior to others, brags constantly, is dominant over others, etc.
- b. Physically aggressive: the youth initiates acts of physical aggression toward others.
- c. Tantrums: youth uses displays of temper to get her / his own way.
- d. Short attention span: the youth has difficulty attending to the task at hand; difficulty completing tasks; is hyperactive.
- e. Poor frustration tolerance: the youth deals poorly with frustration, is impatient.
- f. Inadequate guilt feelings: the youth feels no remorse when her / his behaviour has caused harm to another.
- g. Verbally aggressive: the youth is often verbally abusive in dealings with others.

Strength: Yes or No

Risk Level: Low (0)                      Moderate (1-4)                      High (5-7)

## 8. Attitudes / Orientation:

- a. Antisocial / criminal attitudes: check this item if the youth's attitudes are supportive of a criminal or anti-conventional life style; consider attitudes, values, beliefs and rationalizations concerning the victim or the offending behaviour.
- b. Not seeking help: the youth is not seeking help; is reluctant to seek needed interventions.
- c. Actively rejecting help: the youth is actively resisting the interventions of helping persons or agencies.
- d. Defies authority: the youth refuses to follow directions from parents, teachers or other authority figures.
- e. Callous, little concern for others: the youth shows little concern for the feelings or welfare of others.

Strength: Yes or No

Risk Level: Low (0)                      Moderate (1-3)                      High (4-5)

Summary of Risk / Need Factors:

Low (0-8)      Moderate (9-26)      High (27-34)      Very High (35-42)

## Assessment of Other Needs / Special Considerations

### 1. Family / Parents

- a. Chronic history of crime: check item if members of the youth's immediate family (parent or sibling) have engaged in repeated criminal acts.
- b. Emotional distress / psychiatric: either or both parents have a current psychiatric disability or a recent history of such a problem.
- c. Drug-alcohol abuse: either or both parents have a current substance abuse problem or a recent history of such a problem.
- d. Marital conflict: the parents are currently experiencing marital conflict.
- e. Financial / accommodation problems: check item if the family is currently facing a financial or housing problem.
- f. Uncooperative parents: the parent(s) is unwilling to cooperate in efforts to address the youth's problems.
- g. Cultural / ethnic issues: the family is facing difficulties or conflicts relating to cultural / ethnic / religious adjustment.
- h. Abusive father: the father has engaged in physical, emotional or sexual abuse of a family member.
- i. Abusive mother: the mother has engaged in physical, emotional, or sexual abuse of a family member.
- j. Significant family trauma: this may relate to death or illness in the family or similar type of crisis.

### 2. Youth

- a. Health problems: check this item if the youth is currently suffering from a medical problem.
- b. Physical disability: the youth suffers from a disabling physical condition.
- c. Low intelligence / developmental delay: the youth exhibits obvious and disabling intellectual deficits.
- d. Learning disability: while of normal intelligence, the youth suffers from a learning disability.
- e. Underachievement: the youth has traditionally performed below his or her capacity in school.

- f. Problem solving skills: the youth has difficulty in resolving personal / social problems.
- g. Victim of physical / sexual abuse: check if the youth has experienced abuse at any time in his / her life.
- h. Victim of neglect: check if the youth has experienced neglect at any time in his / her life.
- i. Shy / withdrawn: the youth lacks significant relationships with others and the capacity to form such relationships.
- j. Peers outside age range: youth spends a lot of time with significantly younger or older youth.
- k. Depressed: the youth appears to be in a more or less chronic state of depression.
- l. Low self-esteem: the youth has little feeling of self-worth.
- m. Inappropriate sexual activity: check if the youth engages in illegal or otherwise inappropriate sexual activities (e.g., prostitution).
- n. Racist / sexist attitudes: youth expresses antisocial attitudes regarding women or ethnic groups.
- o. Poor social skills: the youth appears to function poorly in social situations; lacks normal social skills.
- p. Engages in denial: check if the youth seems unable to admit that he / she has problems.
- q. Suicide attempts: there is a history of suicide attempts.
- r. Diagnosis of psychosis: check if there has ever been a diagnosis of psychosis or other serious psychiatric disturbance.
- s. Third party threat: youth is at risk of harm from other individuals.
- t. History of sexual / physical assault: the youth has a history of directing sexual or physical assaults against others.
- u. History of assault on authority figures: the youth has a history of violent assaults on teachers, parents, counselors or other authority figures.
- v. History of weapon use: check this item if the youth has any history of using any type of weapon.
- w. History of fire setting: the youth has a history of arson or arson attempts.

- x. History or escapes: there is a history or escapes or escape attempts.
- y. Protection issues: child welfare / protection issues involved.
- z. Adverse living conditions: youth is living on the street or otherwise inappropriately housed.