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**An Assessment of the Validity of the
Ministry Risk\Needs Assessment Form**

by Donna Grimard

A thesis submitted to
the Faculty of Graduate Studies and Research
in partial fulfillment of
the requirements for the degree of

Master of Arts

Department of Psychology

Carleton University

Ottawa, Ontario

December 19, 1995

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**"An Assessment of the Validity of the Ministry
Risk\Needs Assessment Form"**

submitted by Donna C. Grimard, B.Sc.
in partial fulfilment of the requirements for
the degree of Master of Arts

Thesis Supervisor

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Date:

Abstract

Scarce resources in the criminal justice system have led to the systematic assessment of offenders to aid in the proper allocation of services to those most in need. The Ministry Risk/Needs Assessment Form (MRNAF) is a broad based assessment tool used for the determination of criminogenic risk and need. Young offenders in custody settings, aged 12 to 17, were evaluated with the use of this form. Outcome measures of criminal and antisocial behaviours included: the Ministry Interim Risk Indicator Form, risk judged by case manager, compliance with condition, any new convictions, technical violations, and any evidence of recidivism. Cronbach's alpha indicated moderate levels of internal consistency of the MRNAF. Multiple regression analyses indicated statistically significant predictive results with the use of the MRNAF in relation to the various outcome measures. Stepwise multiple regression analyses indicated criminal or antisocial attitudes and orientations as one of the primary indicators of criminogenic risk and need. Some gender differences were noted.

Acknowledgements

This thesis is dedicated to my husband Laval and to my children Jacqueline, Christine, and Nicolas without whose help and support I would not have been able to succeed. I would also like to thank Professor Hoge for all of the help and advice he has given me.

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**AN ASSESSMENT OF THE VALIDITY OF THE
MINISTRY RISK/NEEDS ASSESSMENT FORM**

Prediction of future criminal behaviour is essential to guiding those in the criminal justice system who are responsible for the safety of our community. The high cost of incarceration and limited prison space demands that we be selective in our treatment of offenders. Concerned citizens demand that dangerous criminals, or those likely to reoffend, be confined and controlled. Those people being processed by the criminal justice system demand that their rights are maintained. These concerns have resulted in attempts to reliably assess the criminogenic risk and need of offenders using systematic and empirically defensible methods.

The "Nothing Works" position, which dominated the criminal justice system for many years, stated that treatment programs for criminals were ineffective. Closer examination has revealed that well thought out treatment programs conducted by trained staff, taking individual differences of staff and clients into consideration, do indeed "work" in the reduction of criminal behaviour and that we should be encouraged to explore further the differential treatment of offenders in our efforts to reduce crime (Gendreau & Ross, 1987).

This thesis is specifically interested in the risk\needs principle of differential treatment which states

that low risk offenders should receive minimal supervision and treatment interventions, while higher risk cases should receive more intensive treatment. The Ministry Risk\Needs Assessment Form, which is evaluated in this study, is a broad based assessment inventory designed for use with youthful offenders. It has been developed from the underlying principles of the risk/needs principle, the general personality and psychological perspective of criminal conduct, and empirically based indicators of criminogenic risk factors. The principal purpose of this study is to evaluate the reliability and validity of the Ministry Risk\Needs Assessment Form.

While there has been a considerable amount of research in the area of the assessment of criminogenic risk and need, many of these studies involved the use of assessment inventories that evaluate limited aspects of the person and his or her circumstances. The Ministry Risk\Needs Assessment Form was developed with the intention of assessing a wide variety of personality characteristics and circumstances of the youth in an attempt to accurately assess the youth's potential for future criminal behaviour, identify criminogenic need characteristics that should be targeted in treatment intervention programs, and identify personality characteristics that may affect their responses to treatment strategies.

LITERATURE REVIEW**Risk/Needs Principle**

The Risk/Needs principle encompasses a wide variety of theories relevant to an explanation of criminal behaviour but primarily focuses on the personality and social psychological perspective of criminal conduct. The general personality and social psychology perspective of criminal conduct (Andrews & Bonta, 1994) states that criminal acts are the result of a diverse set of external social circumstances that reward and support criminal behaviour, and that personal attitudes, personality characteristics, and friendships that are conducive to a criminal lifestyle are the major factors influencing criminal conduct. It is supported, in part, on evidence in the literature of empirically based criminogenic risk factors of an individual and their circumstances. Social learning theory is also fundamental to the general personality and social psychology of criminal conduct. This theory suggests that behaviour is influenced by the outcomes of particular acts, with the initiation of behaviour resulting from the incentives and disincentives of the immediate situation. The individual's perception of the rewards and costs, for criminal versus noncriminal action, serve as the underlying motivation for their behaviour.

The Risk\Needs Principle consists of three basic concepts: 1)Risk, 2)Need and 3)Responsivity. Simply put,

the risk\needs principle states that treatment of offenders should take into consideration the individual's propensity for future criminal conduct and the criminogenic need characteristics of the person and his\her situation.

Criminogenic risk refers to the probability that an offender will participate in future criminal conduct. The need factors are those risk factors that are susceptible to change (Andrews, Bonta & Hoge, 1990). Responsivity refers to the individual's personal characteristics which affect their response to treatment strategies.

Risk

One of the major purposes of assessing risk is to identify high risk offenders who need more intensive levels of service and to match the offender's risk level with treatment approaches. Treatment and placement evaluations must take into consideration the interaction of the risk level of the offender with the type and amount of supervision being given. Whereas intensive service is most likely to result in no change in recidivism rates for the low risk cases, recidivism can be decreased when intensive treatment is allocated to medium to high risk cases (Andrews & Bonta, 1994; Jeffery & Woolpert, 1974).

Andrews, Kiesling, Robinson, and Mickus (1986) is just one example of a study that found an interaction of service and risk. Probationers were classified into criminogenic risk categories with the use of the Level of Supervision

Inventory (LSI). A control group and an experimental group were set up. The control group received standard treatment and levels of supervision. The experimental group received intensive services and supervision from volunteers. High risk individuals assigned to regular low levels of professional supervision had a recidivism rate that was almost double that of the experimental group that received intensive supervision and services from volunteers. However, low risk probationers assigned to the standard lower levels of supervision had recidivism rates that were half that of those assigned to the intensive services of volunteers.

Need

Criminogenic needs are the dynamic risk factors of offenders and their situation that, when changed, result in a decrease in the chance of recidivism for that individual. It is to these attributes that treatment should be directed. The most dramatic decreases in criminal behaviour have been noted in programs that target the criminogenic needs of the offenders (Andrews, Leschied, & Hoge, 1992). These criminogenic needs can be defined by five key indicators of antisocial lifestyle and personal characteristics. These include: criminal associates, behaviours, feelings, cognitions, and personalities which can be described as procriminal in nature (Andrews et al., 1992; Andrews & Friesen, 1987; Loeber, 1982; Motiuk, Bonta, & Andrews, 1986; Wormith, 1984).

Lerner, Arling and Baird (1986) reported positive results after the implementation of a Client Management Classification (CMC) system which matched treatments to offender needs and characteristics. Personnel were trained to implement the appropriate treatment programs. When compared to control groups receiving regular intensive supervision, the matched CMC group reported decreased recidivism rates. Significant improvement for medium and high risk clients in percentage of individuals employed at termination of probation and increased income was also noted.

The 1990 review by Andrews, Zinger, Hoge, Bonta, Gendreau, and Cullen, found 54 studies, out of the 124 reviewed, that included treatment programs relevant to the criminogenic risk and need of offenders. Clinically relevant treatment was defined as:

1. treatment service delivered to high risk cases;
2. criminogenic needs targeted for change (e.g. procriminal attitudes rather than self-esteem);
3. styles and modes of treatment matched to criminogenic needs and learning styles of offenders.

When the treatment effects of programs were evaluated, those considered to be relevant to the criminogenic needs of clients showed positive treatment effects, while those considered to be inappropriate did not.

Responsivity

The responsivity aspect of the risk\needs principle suggests that treatment programs should be matched to the characteristics of the offender. Some of the characteristics that interact with treatment programs would include attributes such as learning styles, developmental levels, personality, sensitivity to others, level of anxiety, verbal skills and cognitive abilities (Brill, 1978; Levinson, 1988; Leschied & Thomas, 1985; Lukin, 1981; Reitsma-Street & Leschied, 1988).

One example of a program that utilizes the responsivity principle is the Craigwood-Bridgeway program (Leschied & Thomas, 1985). It uses an evaluation of the individual's personality development from a sequential/stage perspective. Individuals are seen as progressing through a series of increasingly complex and higher level of social awareness with high risk delinquents often falling in the lower stages of cognitive awareness. Offenders in the lower levels of cognitive development are believed to benefit most from more highly structured environments with stricter controls, while higher conceptual level individuals are felt to profit more from less structured environments. Approaching treatment strategies in this manner led to decreases in return rates to training schools and correctional facilities.

Correlates of Offending

The correlates of offending are those attributes and

situations of an offender that have been shown to be associated with criminal activity and criminogenic need. It is with the use of these correlates that criminogenic risk and need can be evaluated. These correlates can be divided into two types: static correlates and dynamic correlates. Static correlates, or those that cannot be changed, include variables such as past criminal record or sex of the offender. The dynamic correlates can be changed by intervention methods and represent the criminogenic need factor. These would include variables such as criminal attitudes, association with criminal others, or drug use. The following is a summary of the correlates of offending taken from reviews of the literature. It is not meant to be exhaustive but represents a general overview of some of the major correlates of offending.

Static Risk Factors

Static risk factors are those aspects of an offender that cannot be changed by intervention methods. These include:

Age - with younger offenders more likely to cause problems both in and out of custody settings (Gottfredson & Gottfredson, 1994; Hanson, Moss, Hosford, & Johnson, 1983; Smith & Brame, 1994).

Gender - with males more likely to offend than females but once females have entered into the juvenile system the results are much less skewed (Smith & Brame, 1994;

Thornberry, Lizotte, Krohn, Farnworth, & Jang, 1994).

Past criminal record - with those having a history of criminal activity in the past more likely to reoffend (Gottfredson & Gottfredson, 1994; Hanson, Henggeler, Haefele, & Rodick, 1984; Loeber, 1991).

Past history of behaviour problems at school - including low achievement, below average effort, lack of interest and boredom with school, or truancy (Leschied & Thomas, 1985; Loeber & Dishion, 1983; Tremblay, Masse, Perron, Leblanc, Schwartzman, & Ledingham, 1992).

While these are important indicators of criminogenic risk, these static correlates can not be changed by treatment interventions and will not be discussed in detail here.

Dynamic Risk Factors

Of particular interest, to those in the criminal justice system who are interested in decreasing crime, are the dynamic correlates (see Table 1). It is these factors which indicate treatment needs as well as risk factors.

These would include:

Family Circumstances/Parenting - Poor parenting, where the parents have poor control over their children and are often inconsistent with both punishment and affection, or are abusive physically, emotionally or sexually, has long been known to be one of the most salient contributors to the delinquent behaviour of children (Burton et al., 1995;

Table 1: DYNAMIC RISK FACTORS

Family Circumstances\ Parenting	Poor parenting with inadequate supervision, abuse, and poor discipline; poor identification with either or both parents
Attitudes\ Orientations	Personal endorsement of antisocial or procriminal attitudes; rejection of society rules and assistance
Education\ Employment	Poor academic achievement and lack of motivation to succeed, poor relations with teachers and students, problems functioning in the schoolyard
Leisure Time	Poor use of leisure time and lack of commitment to conventional activities
Personality\ Behaviour	Impulsivity, self abuse, aggressive behaviour, various conduct and personality disorders
Substance Abuse	Frequent use of alcohol and/or illegal drug use
Peer Relations	Association with delinquent others
Cognitive Skills	Social perspective taking, moral reasoning, problem solving skills, social skills, intelligence, developmental level and verbal ability

Leschied & Thomas, 1985; Quay, 1988). Delinquents more frequently come from parents who have a history of multiple psychological handicaps such as low verbal intelligence, emotional instability, and/or alcoholism (Loeber & Dishion, 1983). These families tend to be unstable, with a low level of cohesiveness. Problems with identification and/or attachment, with either or both parents, is often seen particularly with respect to the mother (Hanson et al., 1984; Henggeler, Hanson, Borduin, Watson, & Brunk, 1985; Towberman, 1992). Lack of support from parents is thought to push the child towards stronger negative peer attachments. The role of the father as neglectful, unconcerned, and indifferent appears frequently in the families of delinquents.

Defective discipline sometimes emerges as the most important background determinant of delinquent behaviour. This can be in the form of either too severe, too lax, or erratic discipline (Burton et al., 1995; Quay, 1965). Poor and erratic disciplinary practices contribute both directly and indirectly to the development of delinquent behaviours. Children learn to coercively control their environment by direct observation of the coercive techniques practised by the parents, as well as being intermittently rewarded for their own antisocial and aggressive behaviour. Their inability to effectively solve problems, places them at risk for rejection by peers and adults, and for academic and work

failure. Overt antisocial acts such as aggression, excessive quarrelling, disobedience, and fighting have been associated with defective discipline on the part of parents (Loeber, 1982).

Parental monitoring of children influences the frequency and variety of delinquent behaviours. This influence becomes even more apparent as the child enters adolescence. Adequate supervision fosters appropriate control by the parents, as well as having the secondary effect of minimizing the adolescent's contact with delinquent peers (Loeber & Dishion, 1983; Quay, 1965). Covert antisocial acts such as lying, stealing, conning, truancy, drug use, and vandalism are thought to be associated with defects in the parent's monitoring of children (Loeber, 1982).

An analysis of 55 studies of juvenile correctional treatment by Lab and Whitehead (1988), found improvement in recidivism rates for the experimental treatment group over the control group only in the subgroup of treatment programs labelled 'systems diversion'. This group consisted largely of some type of family counselling intervention.

Attitudes/Orientation - Antisocial or procriminal attitudes have a relatively great potential for change and are thus prime targets for treatment interventions (Andrews & Bonta, 1994; Guerra, 1989; Thornberry et. al, 1994). Antisocial or procriminal attitudes would include those

values and beliefs that are supportive of criminal behaviour. For example, aggressive children, more than less aggressive children, have been found to believe that aggressive behaviour will lead to positive consequences for themselves, such as: tangible rewards, increased self-esteem, and avoiding a negative image with peers (Guerra, 1989).

A high tolerance for deviance and a general disrespect for the law would be included in attitudes that are supportive of criminal behaviour (Andrews et al., 1992). Attitudes of lack of trust, or respect for official agencies, not only discourages youth from compliance but also results in the delinquent not seeking help or actively rejecting any help that is offered.

There is some disagreement as to the causal path of delinquent beliefs, whether the delinquent beliefs precede the delinquent acts (as in differential association theory) or the delinquent act precedes the rationalizing delinquent beliefs (interactional theory) (Thornberry et al., 1994). However, it is widely agreed that delinquent beliefs correlate strongly with delinquent behaviour, thus creating a consistent social environment for the delinquent.

Education/Employment - School Grades or academic achievement are frequently poor among delinquents and have thus been targeted for treatment. However, it is unclear whether low achievement is the cause of delinquency, or one

of the results of delinquent behaviour (Tremblay et al., 1992). Some theories state that conduct disorder is a result of inadequate cognitive functioning, while others stress the importance of the effect of poor school performance on the sociological or psychological factors of loss of self-esteem, deviant peer association, or frustration in goal achievement as causes of delinquency. What is known is that delinquent youths often show below average effort and lack of concern for their occupational future when compared to their non-delinquent counterparts (Guy, Smith & Bentler, 1994; Jesness, 1988; and Quay 1965).

The delinquent is often disruptive in the classroom. Problems on the school yard are frequent. They often have poor relationships with both teachers and other students (Loeber, 1991; Roff, 1986; Tremblay et al., 1992).

Leisure Time - Aimless use of leisure time and lack of time spent in the pursuit of conventional activities including church, family, school, or work activities (social control theory) has been shown to be related to delinquency (Andrews et al., 1992; Glueck & Glueck, 1950).

However, a recent study by Burton et al. (1995) surprisingly found an inverse relationship between involvement in extra-curricular activities and delinquency. It was suggested that some activities, particularly for the older adolescent, may decrease parental supervision, while putting youth in situations which may increase delinquent

activities (for example, driving home in automobiles with friends).

Personality/Behaviour - Impulsivity contributes to delinquency independently of other factors and can improve prediction significantly. Impulsivity is reflected in behaviour that is executed without thought to consequences and includes the desire for immediate gratification of needs, with poor planning, and a lack of patience. That delinquents are generally more impulsive and less capable of self-regulating their behaviour than non-delinquents, has been well documented in the literature (Andrews & Bonta, 1994; Loeber, 1991; Wormith, 1984). While some studies are distinguishing between lifestyle impulsivity (which is proving to be a strong correlate of continued criminal behaviour) versus criminal impulsivity as predictors of recidivism (Prentky, Knight, Lee, & Cerce, 1995), the assessment forms reviewed here have not distinguished between types of impulsivity.

Measures such as anxiety or low self esteem are sometimes associated with criminality (Leschied & Thomas, 1985). However, it has been found that unusually high self esteem or an increase in self esteem, when it occurs in an institutional setting, may result in an increase in recidivism (Wormith, 1984). Analogous to this is the finding that a decrease in feelings of adequacy, while incarcerated, may result in greater success in the community upon release

(Wormith, 1984).

Other personality variables, which have proven to be predictive of criminal activity, include attempted suicide, aggression and various conduct and personality disorders, such as psychopathy and conduct disorder (Andrews, Bonta & Hoge, 1990; Berkowitz, 1993; Leschied & Thomas, 1985; Loeber, 1982, 1991; Loeber & Dishion, 1983).

Peer Group Associations - The social learning/differential association theory states that criminal behaviour emerges as a result of exposure to more antisocial messages favouring criminal conduct than prosocial messages. Association with other delinquents or gang members encourages procriminal attitudes and creates peer pressure to conform to the criminal lifestyles of these groups (Andrews et al., 1992; Loeber & Dishion, 1983; Smith & Brame, 1994). Some reviews have shown the relationship between associations with delinquent peers and delinquency to be one of the strongest, most consistent relationships in the research literature (Hanson et al., 1984; Thornberry et al., 1994).

Substance Use - There is also a strong and consistent relationship between substance use and offending (Elliot, Huizinga, & Ageton, 1985; Gottfredson & Gottfredson, 1994; Guy et al., 1994; Smith & Brame, 1994; van Kammen & Loeber,

users, to nonusers, for both prevalence and general offending rates (Towbermann, 1992). Van Kammen and Loeber (1994) found that previous property offenses increased the risk of boys initiation of illegal drug use and drug dealing, while committing person-related offenses increased the risk of becoming involved in drug dealing, and serious violent offenses predicted drug dealing. Discontinuation of illegal drug use and drug dealing was also related to a decrease in the frequency of offenses.

The number of drug-involved offenders has been increasing. Professionals believe that crimes including drug involvement have become more serious. The National Institute of Justice reported that between 50% and 80% of male arrestees tested positive for any drug, with cocaine being the most prevalent. However, drug use is not thought to be an isolated problem, but occurs within a context of other problematic behaviour including procriminal attitudes and behaviours (Guy, et al., 1994). It appears that problems with socialization, attitudes, behaviours and diminished attachment to family, schools and the community as a whole leads to drug use, which in turn increases the probability of later delinquent acts.

Cognitive Skills - Cognitive skills deficits can include social perspective taking (empathy), moral reasoning, problem solving skills, social skills, intelligence, developmental level and verbal ability.

Cognitive skill development has been linked to delinquent behaviour with a greater proportion of delinquents showing skill deficits and being assessed at lower developmental and cognitive levels than their non-delinquent counterparts (Guerra, 1989; Reitsma-Street, 1984) . Problem solving and social skills are frequently targeted now as interim treatment needs of offenders. Assessing an individual's cognitive skills can assist in determining their potential responsivity to a particular treatment. For example, relationship oriented counselling has been shown to decrease recidivism among clients with above average empathy scores but increased crime rates for those with less empathic skills. Matching cognitive ability to either more highly controlled, or less controlled environments has also been shown to be effective in reducing recidivism (Kiesling & Andrews, 1980; Reitsma-Street & Leschied, 1988).

Assessment Inventories

The past few years has seen a growing trend towards the differential treatment of offenders. Many forms of assessing the criminogenic risk and need of people have emerged. Included among these are psychological typologies which assess various aspects of an individual's personality profile. Included in this category would be the MMPI and Psychopathy checklist (Andrews & Bonta, 1994; Andrews et al, 1992). There are also assessments that use various classification systems. For example, assessments based on

cognitive developmental levels are based on the theory that people must work through certain major life tasks or steps of development. Offenders are seen as generally falling into the lower stages of development. These developmental levels are also used to design treatment programs that meet the developmental and structural needs of clients. The Conceptual level and Interpersonal Maturity Level are just two examples of this type of classification system (Brill, 1978; Jesness, 1988; Leschied & Thomas, 1985).

Some of these methods, while being quite useful for their particular intents and purposes, are quite narrow in scope, in that they assess only one aspect of the individual without taking the many diverse aspects of offenders and their circumstances into consideration for their assessment of criminogenic risk and need. While these personality and cognitive, developmental assessments certainly have their uses, the broad-based tools, which encompass a wide variety of the offender's characteristics and their circumstances, are more useful in setting up effective treatment strategies. It is to these broad-based tools that we turn our attention to here.

Broad-Based Assessments

Broad-based assessments are based on the correlates of criminal conduct and include both the static correlates as well as the dynamic correlates. Questionnaires are completed including information such as age, sex, prior criminal

record, and other variables which have been shown to be predictive of future criminal behaviour. The questions result in a total score that determines the risk group. Criminal risk refers to the probability of recidivism for the particular person. High scores indicate high risk of recidivism while low scores are indicative of low risk of future criminal activity. The Salient Factor Score and the Statistical Index for recidivism (SIR), (Andrews & Bonta, 1994) are examples of risk assessment tools currently in use today. These tools have proven very useful in the prediction of recidivism but are high on measures of static correlates and low on measures of the dynamic variables which can be responsive to treatment.

The broad-based assessment tools which assess both the static and dynamic aspects of offenders, have been shown to be effective in properly targeting offenders for either high or low supervision requirements, and identifying criminogenic needs for planning treatment strategies (Andrews & Bonta, 1994; Andrews et al., 1992; Bonta, & Motiuk, 1987; Motiuk, Bonta & Andrews, 1986;). The Wisconsin Risk Assessment Instrument and Level of Service Inventory (LSI) are risk assessment tools which include dynamic as well as static correlates of offending. The LSI was designed to assess the risk/need factors relevant to adult offenders (Andrews, Robinson & Balla, 1986). The LSI has been shown to be effective in predicting success in halfway houses,

officer judgments of appropriate levels of supervision, actual amount of supervision required, early closures versus active supervision, inprogram recidivism, multiple reconvictions, incarcerations, self-report measures of criminal activity, and predictive and incremental criterion validity when compared to paper and pencil measures of similar areas of concern (Andrews, 1982; Andrews & Bonta, 1994; Andrews, Kiesling, Mickus & Robinson, 1986; Andrews, Kiesling, Robinson & Mickus, 1986; Andrews et al., 1992; Bonta & Motiuk, 1985, 1987; Motiuk, Bonta & Andrews, 1986).

From this parent instrument, two others have been derived: the Young Offender-Level of Service Inventory and the Youth Level of Service Inventory. The Young Offender-Level of Service Inventory (YO-LSI) is a refinement of the LSI for use with 16 and 17 year old offenders who must be treated and housed differently than either their younger or older counterparts. The YO-LSI has proven effective in predicting recidivism, and in predicting predatory behaviour of delinquent youth in an institutional setting (Shields, 1993; Shields & Simourd, 1991).

The YLSI is the youth version of the LSI. The original YLSI consists of 106 items that are similar in nature to the LSI but are tailored for use with younger groups. The YLSI can be used as an interview schedule or as a method of coding and quantifying information from narrative files. Various versions of the YLSI (drawing from the original 106

items) have been used in several studies. Previous versions of the YLSI have been shown to be correlated with: level of service required for children (assignment to a full vs. part time worker), those in group homes vs. those in residential treatment homes, residential placement of children, referral to a Share the Parenting program, and significant interaction effects of risk and involvement in a Share The Parenting program (Andrews, Robinson, & Balla, 1986). The YLSI showed interrater reliabilities of between .65 (Pearson r) and 1.00. Test-retest reliability has been reported at .54 (Pearson r) at a 6 month follow-up. Subtotal intercorrelations and subtotal total correlations have also been found to be reliable (Andrews et al., 1986; Hoge, Andrews, & Leschied, 1994; Simourd, Hoge, Andrews, & Leschied, 1994).

The YLSI interim change scores (6 month interval) correlated significantly with final outcome in the Share The Parenting Program, (Andrews, et al., 1986). Families that participated in the Share the Parenting program (STP) received intensive help with parenting tasks. While there were no main effects of the STP program, significant interactions of STP and Risk were found. Participation in STP was related to decreases in mean days in care and placement rates for children identified as high risk for residential placement, but days in care and placement were not affected for the lower risk children. Children involved

in the STP treatment program, who had been designated as high risk for residential placements with the use of the YLSI, presented significantly lowered mean retest scores for the YLSI. No differences in mean retest scores were found for the non participants. This high risk group also showed a significant decrease in residential placements and mean number of days in care when compared to the control group of non participants while among the low risk group, residential placements and mean days in care were slightly higher (not significant) for the participants over the non participants.

The Ministry Risk\Needs Assessment Form is a broad based assessment tool which was developed specifically with the young offender, aged 12 to 17, in mind. The first section of the Ministry Risk\Needs Assessment Form, which is being assessed in this study, is a subset of questions taken from the YLSI. The questions used in the Ministry Risk\Needs Assessment form were found, in previous analyses of the YLSI, to be the most predictive of criminogenic risk and need (R.D. Hoge, personal communication, January 4, 1996).

Purpose of the study

The internal consistency and validity of the first section of the Ministry Risk/Needs Assessment Form, will be examined in this study. The issues of the validity of the Ministry Risk\Needs Assessment Form will be explored by relating seven subcomponents of this form to various

alternative measures of criminal and antisocial behaviours. As this form has been based on the risk/needs principle, the social psychological and personality perspectives of criminogenic risk, and previously identified indicators of criminogenic risk, it is expected that the MRNAF will correlate significantly with all of the outcome criterion measures of criminogenic and antisocial behaviour.

A secondary purpose of this study is to evaluate the relative importance of the criminogenic risk\need variables assessed with respect to the outcome criterion measures. Varying methods of measuring criminogenic risk variables in any one study combined with the variety of variables used in different studies, make it difficult to determine which of the known risk factors contribute the most to the prediction of risk. However, this continues to be of scientific interest and will be assessed in this study with the use of stepwise regression analysis.

This study also provided an opportunity to study the differences in the criminogenic risk/need characteristics for males and females. The review of female offending conducted by Reitsma-Street (1991), would lead us to believe that the criminogenic risk factors for females are not necessarily the same as those for males. As the majority of studies on delinquents have been based primarily on samples that were either entirely or primarily composed of males, there is a need for more information of criminogenic risk

and need characteristics of females.

METHOD

Participants

The sample included all consecutive admissions of young offenders into custody facilities in the Ontario region during a six month period. All of the youths had been convicted of offenses and had received custody dispositions into either closed or open custody settings. The sample included 436 youths, 373 males and 63 females. They ranged in age from 12 to 17.

Measures

Client Information Card (CIC)

The information used in this study was obtained from two sources. The first was the Client Information Card (CIC) which includes the official criminal record for the young offender. This consists of pertinent information about past offenses and dispositions as well as any current charges, convictions, and/or dispositions.

Predisposition Report (PDR)

The second source of information, used for the scoring of the Ministry Risk\Needs Assessment Form, was the Predisposition Report (PDR). This is prepared by the probation officer after conviction of the youth and prior to disposition decisions. It is designed to provide a comprehensive, narrative review of the personality and behavioral characteristics of the young person. It also includes information pertaining to his or her home

environment and relationships with parents, aspects of the youth's life style, and the details of his or her criminal behaviour. Although the form is written in narrative style, the content and types of information that are collected are clearly defined. The information obtained is based on interviews with the young person, the individual's parents or guardians, and, where possible, any other significant persons in the offender's life including teachers, police, counsellors etc.

Ministry Risk/Needs Assessment Form (MRNAF)

The Ministry Risk/Needs Assessment Form (see Appendix A) is a seven section form that has been developed to assess youth and their circumstances for the determination of criminogenic risk, potential responsivity to treatment, and to assist in the development of comprehensive case management strategies. This form has been based on the most recent theoretical and empirical evidence regarding the criminal activity of youth: specifically, the risk/needs principle, indicators of criminogenic risk, and responsivity factors. It has been developed with the adolescent (ages 12 to 17) in mind.

Section I, which is the focus of this study, is a quantitative survey of young offenders and their situations relevant to their potential for future criminal behaviour. It is a checklist containing 42 binary items (scored 0 or 1). The items in the checklist have previously been

demonstrated to be risk factors in the prediction of criminal activity and recidivism. These items are divided into eight different categories. These categories are: (a)prior and current offenses\dispositions (not available for use in this study); (b)family circumstances\parenting; (c)education\employment; (d)peer relations; (e)substance abuse; (f)leisure\recreation; (g)personality\behaviour; and (h)attitudes\orientation. Each section results in a quantitative score that, when summed, equals the risk\need level.

While it is the first section of the MRNAF that is being assessed in this study, this form does include the following other sections: Part II consists of a summary of the risk\need factors. Part III is an assessment of other needs or special considerations that may affect the risk\needs assessment of the offender or their potential responsivity to treatment strategies. Part IV is reserved for the case worker's professional judgement of the client's general risk\need level. Part V is a section for the recommendation of supervision level. Part VI allows for the summary of the goals of the Case Management Plan. Part VII will be completed at a later date when the case comes up for review and re-assessment of the current management strategy. The Assessment Form is accompanied by a fourteen page scoring manual, which includes instructions for the proper scoring of each item.

Ministry Interim Risk Indicator Form (MIRIF)

The MIRIF (see Appendix B) includes a 10 item checklist that is used to indicate the potential risk of a young person while in custody. It also includes the case managers overall assessment of risk level, the reason for placement decisions, and provision for a monthly review of the case. These forms are completed by caseworkers. It was developed in response to the need to identify young offenders already involved in the criminal justice system and in custody settings who may become either chronic or dangerous offenders (i.e., they have already been deemed as high risk youth when compared to the general population).

Risk-Judged High by Case Managers

The MIRIF requires that case managers indicate their assessment of the individual with respect to their professional judgment of criminogenic risk. This is recorded as either high or low risk.

Follow-up Assessments

All youth were reassessed periodically by probation officers or case workers, with the use of a variety of assessment methods, including case files, the CIC and PDRs. Follow up was available, for all youth included in the study, for periods ranging from six to eighteen months starting at the time of disposition of the youth. These follow-up assessments included information that was used for the outcome measures:

1. **Cooperation** - assessments of how cooperative the youth was in dealing with other people during his or her time in custody.

2. **Compliance with conditions** - whether or not the youth abided by the rules of the custody disposition.

3. **Technical Violations** - technical violations of the custody disposition, or failure to comply with any other requirements of the court, such as failure to report to probation officers or case workers when required.

4. **Number of New Convictions** - This included the number of incidents that resulted in official processing and conviction.

5. **Any New Convictions** - A binary code was used resulting in a measure of youth who had reoffended and those who had not reoffended.

6. **Any Evidence of Recidivism** - This measure included both official and unofficial recidivism. Follow-up assessments included the case workers judgement of offenses committed by the youth that may not have resulted in official processing.

Procedure

The PDR, CIC, and MIRIF were sent to Carleton University by the agencies involved. The information from these forms was used to code the variables. Six coders (all graduate students at Carleton) were involved. All of the coders were given extensive training in the coding of the

variables with the use of a coding manual which was developed specifically for use with the MRNAF. Interrater reliability of coding with both the CIC and PDR forms was assessed at regular intervals. Coefficients ranged from .65 to 1.00, with a mean of .72 (Hoge, Andrews, & Leschied, 1994). Periodic training was provided to ensure that accuracy was maintained.

RESULTS**Descriptive Data**

The 436 young offenders in this sample included 373 males and 63 females. The total scores from the MRNAF ranged from 1 to 34 with a mean score of 18.82 (SD = 5.99). The mean score of the male sample was 18.02 (SD = 6.08) and the mean for the females was 18.62 (SD = 5.10).

The individual means and standard deviations of the subcomponents are listed in Table 2 for the whole sample and in Table 3 for the males and females. Inspection of Table 3 reveals significant gender differences for the subcategories of 'education/employment', 'substance abuse', and 'leisure/recreation' with males having greater difficulties with 'education/employment' and females having greater difficulties with 'substance abuse' and 'leisure/recreation'.

The means and standard deviations for the outcome measures are listed in Table 4 for the whole sample and in Table 5 for the males and females. Only the outcome measure of 'compliance with conditions' showed significant gender differences, with females having greater problems in this area than males.

Table 2: MINISTRY RISK\NEEDS ASSESSMENT FORM DESCRIPTIVE DATA

	# of Items	Alpha	Mean	SD
Family Circumstances/ Parenting	6	.55	3.60	1.50
Education/ Employment	6	.74	3.25	1.87
Peer Relations	4	.67	2.85	1.17
Substance Abuse	5	.73	2.02	1.50
Leisure/ Recreation	3	.54	1.72	.84
Personality/ Behaviour	7	.63	2.98	1.74
Attitudes/ Orientation	5	.49	2.40	1.24
Total Scores	36	.83	18.82	5.99

Note: N = 436 (Males = 373, Females = 63)

Table 3: DESCRIPTIVE DATA OF MINISTRY RISK NEEDS ASSESSMENT FORM SUBCOMPONENTS BY GENDER

	Gender	Mean	SD	t
Family Circumstances/ Parenting	Male	3.54	1.50	1.93
	Female	3.94	1.50	
Education/ Employment	Male	3.34	1.90	-2.69**
	Female	2.73	1.61	
Peer Relations	Male	2.84	1.17	.27
	Female	2.89	1.21	
Substance Abuse	Male	1.23	1.37	2.33**
	Female	1.73	1.61	
Leisure/ Recreation	Male	1.68	.84	2.14*
	Female	2.83	.81	
Personality/ Behaviour	Male	3.01	1.77	-.85
	Female	2.83	1.56	
Attitudes/ Orientation	Male	2.37	1.26	1.40
	Female	2.59	1.10	
Total Scores	Male	18.02	6.08	.74
	Female	18.62	5.10	

Note: N = 436 (Males = 373, Females = 63).

Based on unequal t values.

*p < .05., **p < .01.

Table 4: DESCRIPTIVE DATA OF OUTCOME VARIABLES**A. Continuous Data**

Variable	Mean	SD
MIRIF	1.81	1.55
Number of new Convictions	1.34	2.07

B. Dichotomous Data

Variable	Category	Percent
Risk-judged by case manager	Low	50%
	High	50%
Compliance	Non/compliance	49%
	Compliance	51%
Cooperation	Non/cooperative	52%
	Cooperative	48%
Any new convictions	No	53%
	Yes	47%
Technical Violations	No	64%
	Yes	36%
Any evidence of recidivism	No	26%
	Yes	74%

Note: The Ns for all subjects ranged from 359 to 436.
Subjects were dropped when outcome data was not available.
See Appendix D for the N's of each test.

Table 5: DESCRIPTIVE DATA OF OUTCOME MEASURES BY GENDER**A: Continuous Data**

	Gender	Mean	SD	t
Ministry Interim Risk Indicator Form	Male	1.78	1.55	.77
	Female	1.95	1.56	
Number of new convictions	Male	1.39	2.12	-1.09
	Female	1.08	1.66	

B. Dichotomous Data

Category		Females	Males	Chi Square
Risk-judged by case manager	Low	47%	51%	.33
	High	53%	49%	
Compliance with conditions	Non/compliance	63%	47%	5.25*
	Compliance	37%	53%	
Cooperation	Non/cooperative	63%	51%	3.26
	Cooperative	37%	49%	
Any new convictions	No	59%	52%	.90
	Yes	41%	48%	
Technical violations	No	56%	66%	2.41
	Yes	44%	34%	
Any evidence of recidivism	No	18%	28%	3.01
	Yes	82%	72%	
Custody	Open	68%	63%	.43
	Closed	32%	37%	

Note: The Ns for all subjects ranged from 359 to 436.
Subjects were dropped when outcome data was not available.
See Appendix D for the N's of each test.

*p < .05

Relations Among MRNAF Subscales

The internal consistency of the subscales was acceptable (see Table 2), with an overall reliability coefficient (alpha) of .83. Alpha levels of the subcomponents ranged from .49 to .74.

Inspection of Table 6 reveals that the intercorrelations among the subscales are positive and generally statistically significant. The one exception is the correlation between substance abuse and the family circumstances variable which is non significant. Correlation of the subcomponents with the total score are all statistically significant.

Inspection of Table 7 indicates that statistical significance is found more frequently among the subcomponents for males than for females. For both males and females, it is the attitude/orientation subcomponent that shows the greatest correlation with the other subcomponents. The male sample shows similar consistent correlations for the category 'personality/behaviour'.

Next, exploratory principal components factor analysis was performed. Initial principal components factor analysis with varimax rotation yielded 11 factors using an eigenvalue of one as the cut off criterion for factors. The 11 components did not yield interpretable factors. A look at the scree plot suggested an analysis requesting 6 factors might be revealing. Table 8 lists the variables included in

the 6 factors and Table 9 gives an interpretation of the factors.

Table 6: PEARSON CORRELATIONS OF SUBCOMPONENTS

	A	B	C	D	E	F	G
A. Family Circumstances/ Parenting							
B. Education/ Employment	.34***						
C. Peer Relations	.25***	.30***					
D. Substance Abuse	.11*	.03	.21***				
E. Leisure\ Recreation	.25***	.23***	.39***	.13**			
F. Personality/ Behaviour	.28***	.43***	.15***	.10*	.15***		
G. Attitudes/ Orientation	.39***	.33***	.31***	.25***	.36***	.44***	
Total Score	.63***	.69***	.56***	.43***	.50***	.66***	.71***

Note: N = 435

*p < .05, **p < .01, ***p < .001.

**Table 7: PEARSON CORRELATIONS OF SUBCOMPONENTS WITH MALES
BELOW THE DIAGONAL AND FEMALES ABOVE THE DIAGONAL**

	Subcomponent and Total Score							
	A	B	C	D	E	F	G	Total
A. Family Circumstances/ Parenting		.26*	.05	.10	.06	.23	.28*	.56***
B. Education/ Employment	.37***		.26*	-.01	.17	.27*	.30*	.64***
C. Peer Relations	.28***	.30***		.16	.31**	.03	.10	.47***
D. Substance Abuse	.10	.05	.22***		.17	.18	-.02	.42***
E. Leisure/ Recreation	.27***	.25***	.41***	.12		.06	.18	.42***
F. Personality/ Behaviour	.29***	.45***	.16**	.10	.16**		.45***	.63***
G. Attitudes/ Orientation	.40***	.34***	.34***	.28***	.36***	.45***		.59***
H. Total Score	.64***	.70***	.58***	.43***	.51***	.67***	.72***	

Note: N = 436 (Males = 373, Females = 63).

*p < .05, **p < .01, ***p < .001.

Table 8: PRINCIPAL COMPONENTS FACTOR ANALYSIS

	<u>Variable</u>	<u>Factor Loadings</u>
<u>FACTOR 1</u>	Problems with peer relations	.69
	Problems with teacher relations	.66
	Disruptive school yard behaviour	.65
	Verbally aggressive	.65
	Physically aggressive	.63
	Disruptive classroom behaviour	.57
	Short attention span	.51
	Poor frustration tolerance	.45
	Tantrums	.41
<u>FACTOR 2</u>	Low achievement	.84
	Inappropriate discipline	.79
	Truancy	.63
	Inconsistent parenting	.51
	Not seeking help	.48
<u>FACTOR 3</u>	Chronic drug use	.73
	Chronic alcohol use	.71
	Substance use interferes with functioning	.66
	Substance use linked to offence(s)	.63
	Occasional drug use	.62
<u>FACTOR 4</u>	Some delinquent friends	.73
	Some delinquent acquaintances	.72
	Could make better use of leisure time	.63
	Parents - difficulty controlling behaviour	.62
	Limited organized participation	.50
	Defies authority	.44
<u>FACTOR 5</u>	Inadequate supervision	.62
	Antisocial procriminal attitudes	.57
	Callous little concern for others	.48
	No personal interests	.46
	Actively rejecting help	.38
	Inadequate guilt feelings	.35
	Poor relations/mother-child	.28
	Inflated self esteem	.20
<u>FACTOR 6</u>	No or few positive friends	.85
	No or few positive acquaintances	.84

Table 9:INTERPRETATION OF FACTORS

-
- Factor 1: consists largely of antisocial personality characteristics including aggression, difficulties with peer and teacher relationships, poor attention span, and low frustration tolerance.**
- Factor 2: appears to contain constructs relating to problems with schooling and poor parenting techniques.**
- Factor 3: is clearly related to substance abuse.**
- Factor 4: could be defined as an anti-establishment factor with rejection of conventional activities, defiance of parental and authority controls, while accepting delinquent peer friends and associations.**
- Factor 5: includes antisocial attitudes with little concern for others.**
- Factor 6: would indicate the individual has no positive acquaintances or friends; although, this factor contained only two variables and must be interpreted with caution.**
-

Validity

The validity of the MRNAF was assessed initially through the use of pearson product moment correlations of the subcomponents with the outcome criteria. Inspection of Table 10 indicates that all of the subcomponents correlated significantly with at least four of the outcome criteria, with the category 'attitudes/orientation' being the only one to correlate significantly with all the outcome variables. 'Leisure/recreation' showed the weakest and fewest correlations with the outcome criteria.

Pearson product moment correlations for males (Table 11) and females (Table 12) would indicate that the females showed fewer significant correlations than the males with the outcome measures. Due to the fewer number of females in the study, one must not automatically conclude that the criminogenic risk variables apply more to males than to females. The one unusual finding for the females is the significant negative correlation of the peer relations variable with the MIRIF.

Next, the validity of the MRNAF was assessed with the use of standard multiple regression and stepwise regression analyses. Standard multiple regression was conducted entering all of the subcomponents at once as a block with none of the categories given priority of entrance. Stepwise regression was conducted to assess the relative importance of the subcomponent criminogenic risk factors assessed by

the MRNAF in relationship to the outcome criteria. The subcomponent variables were chosen after evaluation of the pearson correlations of the subcomponents with the outcome measures. The pearson correlations revealed that 'attitudes\orientations', 'personality\behaviour', 'peer relations', 'substance abuse', and 'family circumstances' were the greatest contributors of prediction.

First, the validity of the MRNAF was assessed in relation to the four outcome measures of recidivism. Statistical significance was found with regression analysis of the MRNAF with all four of the outcome measures of recidivism: 'Any new convictions' $R = .28$, $F(7,428) = 5.29$, $p < .001$; 'number of new convictions', $R = .26$, $F(7,428) = 4.43$, $p < .001$; 'any evidence of recidivism', $R = .20$, $F(7,428) = 2.55$, $p = .01$; and 'technical violations', $R = .19$, $F(7,428) = 2.44$, $p < .02$. (see Table 12). Stepwise regression analyses indicated that the 'attitudes/orientation' subcategory entered first in the prediction of all four of the outcome measures (see Table 13). 'Peer relations' entered second for both 'any new convictions' and 'number of new convictions'. 'Substance abuse' entered second for 'technical violations'. No other variables entered the equations.

Next, validity was assessed in relation to the two outcome measures of risk. Both of these variables showed statistical significance with multiple regression of the

MRNAF: MIRIF, $R = .43$, $F(7,417) = 13.53$, $p < .001$; and 'risk judged by case manager', $R = .36$, $F(7,413) = 8.80$, $p < .001$ (see Table 13). Stepwise regression indicated that the subcomponent 'personality/ behaviour' entered first for both of these outcome measures (see Table 14). No other variables entered the equation.

Looking at the outcome measures for 'general cooperation' $R = .29$, $F(7,426) = 5.72$, $p < .000$; and 'compliance with conditions' $R = .29$, $F(7,427) = 5.64$, $p < .001$; statistical significance was found with multiple regression analyses for both of these variables (see Table 13). Stepwise regression revealed the 'attitudes/ orientations' variable entered first for both of these outcome measures (see Table 14). The 'personality/ behaviour' subcomponent entered second for 'cooperation'. 'Substance abuse' entered second for the outcome measure of 'compliance' and entered third for 'cooperation'. No other variables entered the equation.

Table 10: PEARSON CORRELATIONS BETWEEN SUBCOMPONENTS AND OUTCOME MEASURES

Outcome	Subcomponent and Total Score							
	A	B	C	D	E	F	G	H
Ministry Interim Risk Indicator Form	.14**	.18***	.04	.07	.05	.43***	.16***	.26***
Number of new convictions	.14**	.07	.20***	.10*	.10*	.11*	.20***	.21***
Risk-judged by case manager	.14**	.22***	.06	.11*	.12**	.32***	.25***	.31***
Compliance with conditions	-.11*	-.11*	-.10*	-.21***	-.08	-.13**	-.25***	-.23***
Cooperation	-.06	-.16***	-.10*	-.15**	-.11*	-.20***	-.25***	-.25***
Any new convictions	.17***	.14**	.22***	.09*	.10*	.11*	.21***	.24***
Technical violations	.11*	.04	.07	.14**	.04	.08	.15**	.15**
Any evidence of recidivism	.11*	.06	.13**	.04	.08	.09	.17***	.16***

Note: Due to the scoring method, negative r's indicate positive relationships for the variables compliance and cooperation with conditions.

N's ranged from 421 to 436. Subjects were dropped when outcome data was not available. See Appendix D for the N's of each test.

*p < .05, **p < .01, ***p < .001.

- A. Family circumstances/parenting
- B. Education/employment
- C. Peer relations
- D. Substance abuse
- E. Leisure/recreation
- F. Personality/behaviour
- G. Attitudes/orientation
- H. Total score

Table 11: PEARSON CORRELATIONS OF SUBCOMPONENTS AND OUTCOME MEASURES FOR MALES

Outcome	Subcomponent and Total Score							
	A	B	C	D	E	F	G	H
Ministry Interim Risk Indicator Form	.17***	.21***	.10*	.08	.07	.44***	.20***	.32***
Number of new convictions	.16**	.07	.19***	.08	.08	.12*	.22***	.21***
Risk-judged by case manager	.15**	.27***	.08	.11	.13*	.34***	.27***	.34***
Compliance with conditions	-.08	-.09	-.10*	-.25***	-.07	-.12*	-.25***	-.23***
Cooperation	-.05	-.16**	-.12*	-.17**	-.11*	-.19***	-.25***	-.25***
Any new convictions	.20***	.14**	.21***	.07	.07	.10*	.22***	.23***
Technical violations	.12*	.02	.08	.17***	.03	.11*	.16**	.16**
Any evidence of recidivism	.13**	.05	.14**	.06	.07	.09	.17***	.16**

Note: Due to the scoring method, negative r's indicate positive relationships for the variables compliance and cooperation with conditions.

N = 312 to 373. Subjects were dropped when outcome data was not available. See Appendix D for the N's of each test.

*p < .05, **p < .01, ***p < .001.

- A. Family circumstances/parenting
- B. Education/employment
- C. Peer relations
- D. Substance abuse
- E. Leisure/recreation
- F. Personality/behaviour
- G. Attitudes/orientation
- H. Total score

Table 12: PEARSON CORRELATIONS OF SUBCOMPONENTS AND OUTCOME MEASURES FOR FEMALES

Outcome	Subcomponent and Total Score							
	A	B	C	D	E	F	G	H
Ministry Interim Risk Indicator Form	-.02	-.05	-.35**	-.04	-.15	.35***	.07	-.02
Number of new convictions	.06	.06	.28*	.24*	.34**	.02	.11	.26*
Risk-judged by case manager	.03	-.06	.02	.10	.05	.20	.09	.12
Compliance with conditions	-.15	-.32**	-.08	-.13	-.10	-.16	-.22	-.25*
Cooperation	-.23	-.25*	-.00	-.05	-.06	-.29*	-.16	-.27*
Any new convictions	.06	.16	.24	.22	.32**	.16	.26*	.35***
Technical violations	.02	.25*	.00	-.07	.05	-.08	.05	.06
Any evidence of recidivism	-.05	.29*	.06	-.18	.11	.22	.17	.17

Note: Due to the scoring method, negative r's indicate positive relationships for the variables compliance and cooperation with conditions.

N's ranged from 61 to 63. Subjects were dropped when outcome data was not available. See Appendix D for the N's of each test.

*p < .05, **p < .01, ***p < .001.

- A. Family circumstances/parenting
- B. Education/employment
- C. Peer relations
- D. Substance abuse
- E. Leisure/recreation
- F. Personality/behaviour
- G. Attitudes/orientation
- H. Total score

Table 13: MULTIPLE REGRESSION ANALYSES

<u>Dependent variable</u>	<u>R</u>	<u>R Square</u>	<u>F</u>	<u>Significance of F</u>	<u>Significant Predictors (Beta Weights)</u>
Number of New Convictions	.26	.07	4.43	.000	Peer Relations (.16) Attitude\orientation (.13)
Any Recidivism	.20	.04	2.55	.014	Attitude\orientation (.13)
Technical Violation	.20	.04	2.44	.018	Substance Abuse (.11)
Any New Convictions	.28	.08	5.29	.000	Peer Relations (.15) Attitude\orientation (.14)
Ministry Interim Risk Indicator Form	.43	.19	13.53	.000	Personality\behaviour (.43)
Risk Judged by Case Manager	.36	.13	8.80	.000	Personality\behaviour (.24)
Compliance	.29	.08	5.64	.000	Attitude\orientation (-.20) Substance Abuse (-.16)
Cooperation	.29	.09	5.72	.000	Attitude\orientation (-.17) Substance Abuse (-.10)

Note: N's ranged from 421 to 436. Subjects were dropped when outcome data was not available. See Appendix D for the N's of each test.

Table 14: STEPWISE REGRESSION

Predictor Variables	R	R Square	F	Beta
<u>Number of new convictions</u>				
Attitude/orientation	.20	.04	18.79***	.16***
Peer relations	.24	.06	14.41***	.15**
<u>Any new convictions</u>				
Attitude/orientations	.21	.05	21.58***	.17***
Peer relations	.26	.07	16.87***	.17***
<u>Technical Violations</u>				
Attitude/orientations	.14	.02	9.57**	.12**
Substance abuse	.18	.03	7.58***	.11*
<u>Any evidence of recidivism</u>				
Attitude/orientations	.17	.03	13.56***	.17***
<u>Ministry Interim Risk Indicator Form</u>				
Personality\behaviour	.42	.18	94.39***	.43***
<u>Risk judged by case manager</u>				
Personality/behaviour	.32	.10	48.96***	.26***
Attitudes/orientation	.34	.12	28.21***	.13**
<u>Compliance with conditions</u>				
Attitude/orientation	.25	.06	28.05***	-.21***
Substance abuse	.29	.08	19.50***	-.15***
<u>Cooperation</u>				
Attitude/orientations	.25	.06	27.70***	-3.25***
Personality\behaviour	.27	.07	16.29***	-2.19*
Substance Abuse	.28	.08	12.32***	-2.04*

Note: N's ranged from 421 to 436. Subjects were dropped when outcome data was not available. See Appendix D for the N's of each test.

*p < .05, **p < .01, ***p < .001.

DISCUSSION

The primary objective of this study was to assess the validity and the reliability of the MRNAF. The internal consistency of the subscales was assessed with the use of cronbach's alpha and revealed acceptable results with alpha levels indicating moderate levels of internal consistency. The intercorrelation of the subcomponents revealed significant results for all of the subcomponents with the exception of the 'substance abuse' scale which did not correlate significantly with the 'education\employment' subcomponent.

Exploratory principal factor analysis revealed six interpretable factors. While no further analyses were conducted with the use of the factors in this study, the results, as previously discussed, are interesting and would merit further investigation in future studies.

Pearson product moment correlations indicated that all of the subcomponent scales showed significant correlation with the total score and with many of the outcome measures. The attitude\orientation category was the only one to correlate significantly with all of the outcome measures of criminal or antisocial behaviour.

Multiple regression analysis indicated that the use of the subcomponents for the development of a regression equation resulted in statistically significant predictive results for all of the outcome measures. The relative

importance of the variables was assessed using stepwise regression with results varying depending on the outcome criteria being used. Both correlation of the subcomponents with the outcome measures and stepwise regression revealed 'attitudes/orientations' to be one of the strongest and most consistent predictors of antisocial or criminogenic behaviour. While it is sometimes difficult to assess the relative importance of various indicators of criminogenic behaviours due to the variety of variables used in different studies, the review by Andrews et al. (1992) indicates that antisocial attitudes appear to be among the strongest correlates of delinquency in the studies reviewed. For example, this review (Andrews et al., 1992) reported consistent findings in Anita Mak's (1990) survey, which listed antisocial attitudes as the first variable out of the 13 assessed to enter a stepwise regression in a study of delinquency in a sample of high school students.

Looking at the overall relative importance of the variables in this study, the following order was suggested by the stepwise regressions: 'attitudes/orientations', 'personality/behaviour', 'substance abuse' followed by 'peer relations'. The inclusion of both the 'attitudes/orientation' and 'peer relations' variables in the stepwise regression lend support to the interactional theory of criminal behaviour, which is included in the social psychological and personality perspectives emphasized in

this study. The interactional theory encompasses the belief that criminal behaviour will occur when the situation, as defined by the individual, requires that the individual violate society norms and these actions can then be justified by the individual's criminal cognitions. These actions are then rewarded by criminal associates of the individual, thereby encouraging further criminal behaviours (Thornberry et al., 1994).

What did not enter into the equation for any of the outcome variables with the stepwise analysis was the subcomponent 'family circumstances'. While this variable did show correlation with the majority of the outcome measures when assessed on its own with the use of pearson product moment correlations, stepwise regression did not enter it into the equation for any of the outcome measures. This is contrary to what is often seen in the literature (Burton et al., 1995; Leschied & Thomas, 1985; Quay, 1988) which frequently depicts family circumstances as one of the most salient risk/need indicator variables. However, the relative importance of the family circumstances variable remains controversial with some studies (Fagan & Wexler, 1987 and Levine & Singer, 1988 in Andrews et al., 1992) agreeing with the results found here, that the attitudinal and peer variables have a greater impact on delinquency than family circumstances. Also in support of the findings of this study, family factors have been shown to be more

predictive of early delinquency (ages 8 to 10) than later delinquency (ages 11 to 17) (Andrews et al., 1992).

However, one must interpret the results of this study with a note of caution, taking into consideration the disposition of the youth. All of the youth had been removed from their families during their time in custody, and much of the follow up data was assessed during the time of disposition of the youth. Therefore, the direct effects of the family circumstances variable, such as parental supervision, did not apply during much of the follow-up time period. Burton et al. (1995) found that, especially for males, the direct parental control of adolescents appears to be of primary importance in preventing delinquent behaviour.

The subcomponent 'leisure/recreation' showed the poorest correlation with the outcome criteria; although, pearson product moment correlations were significant for five of the eight outcome measures. While the effects of time spent in the pursuit of conventional activities has traditionally held a very firm place in the literature with respect to criminal activity (Andrews et al., 1992), the recent article by Burton et al. (1995) would suggest that we look a little more carefully at the types of leisure pursuits that we are encouraging youth to participate in, to assure that secondary circumstances surrounding the activities are not providing youth with greater opportunities to commit criminal acts.

The gender differences are interesting to note; although, the results tend to raise even more questions than those already raised by the somewhat confusing and inconsistent results reported in the literature of female offending. In this study, females showed greater problems with the subcomponents labelled 'education/employment', 'substance abuse' and 'leisure/ recreation', and with the outcome variable 'compliance with condition'.

An unusual finding for females in this study was the significant negative correlation of the 'peer relations' subcomponent with the outcome measure of the MIRIF. This finding is the opposite of that found for males which indicated a significant positive correlation of problems with 'peer relations' and scores on the MIRIF. Females are known for committing a minimal number of violent crimes (Reitsma-Street, 1991) and the MIRIF contains a high proportion of individual items related to violent or potentially violent acts. While association with delinquent peers is reported to correlate with criminal behaviour of females, it has also been reported that a lack of friends is known to correlate with delinquency for females (Reitsma-Street, 1991). Is it possible that association and attachment with even a delinquent group of friends has some resiliency effects for females with regard to committing violent offenses?

The gender differences found in this study would

indicate a need for more research on female offenders. It appears that there may be different risk and need factors for the females involved in the criminal justice system which would indicate a need for assessment procedures and treatment strategies for females that may be different than those developed for males.

The MRNAF shows great promise as a useful tool in the assessment of the criminogenic risk of young people with good reliability and significant predictive results. The results are generally consistent with those previously reported in the literature. Clearly, this study showed criminal attitudes as one of the strongest predictors of criminal behaviour of youth which is consistent with some of the more recent literature of criminogenic risk factors. Previous reviews of the youth literature often depict family circumstances, peer relations, and personality characteristics as being the stronger correlates of youthful offending (Andrews et al., 1992). However, it must be noted that these reviews did not always include attitudinal variables.

There are some limitations of this study that must be mentioned. Perhaps the two greatest weaknesses of this study were the absence of data relating to the subcomponent of 'criminal history' included in the first section of the MRNAF and the relatively short follow up time.

Data relative to past criminal history was not

available for this study. Longitudinal studies have indicated that problem behaviours that begin at an early age and continue across a variety of settings and situations is one of the strongest predictors of future criminal behaviour (Andrews et al., 1992). Inclusion of this subcomponent would be expected to improve prediction.

While follow-up periods of 6 to 18 months appear frequently in the literature, longitudinal studies indicate that criminal behaviour is not necessarily consistent at all times but will often disappear and reappear (Loeber, 1982). Thus it would be expected that longer follow-up periods would improve predictive results.

It is also recommended that future research be conducted on the treatment effects of programs which target the criminogenic needs of young offenders as indicated by the MRNAF. Interim change scores could then be assessed in relationship to delinquent behaviours for a true assessment of the instruments ability to accurately target those areas that are responsive to treatment and result in decreases in the criminal behaviours of youth.

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APPENDIX A

Ministry Risk\Needs Assessment Form

Young Offender Name _____

Date of birth _____

Part I - Assessment of Risks and Needs

1. Prior and current offences/dispositions

a. Three or more prior convictions	
b. Two or more prior failures to comply	
c. Prior probation	
d. Prior custody	
e. Three or more current convictions	
Total	

Risk Level:

- Low (0) ☐
Moderate (1-2) ☐
High (3-5) ☐

Comments (include any negative/positive factors)

Source(s) of information _____

Date _____

2. Family Circumstances/Parenting

a. Inadequate supervision	
b. Difficulty in controlling behaviour	
c. Inappropriate discipline	
d. Inconsistent parenting	
e. Poor relations/father-child	
f. Poor relations/mother-child	
Total	

Strength ☐

Risk Level:

- Low (0-2) ☐
Moderate (3-4) ☐
High (5-6) ☐

Comments

Source(s) of information _____

Date _____

3. Education/Employment

a. Disruptive classroom behaviour	
b. Disruptive schoolyard behaviour	
c. Low achievement	
d. Problems with peer relations	
e. Problems with teacher relations	
f. Truancy	
g. Unemployed/not seeking employment	
Total	

Strength ☐

Risk Level:

- Low (0) ☐
Moderate (1-3) ☐
High (4-7) ☐

Comments

Source(s) of information _____

Date _____

4. Peer Relations

a. Some delinquent acquaintances	
b. Some delinquent friends	
c. No or few positive acquaintances	
d. No or few positive friends	
Total	

Strength ☐

Risk Level:

- Low (0-1) ☐
Moderate (2-3) ☐
High (4) ☐

Comments

Source(s) of information _____

Date _____

Part I - Assessment of Risks and Needs

5. Substance Abuse

a. Occasional drug use	
b. Chronic drug use	
c. Chronic alcohol use	
d. Substance use interferes with functioning	
e. Substance use linked to offense(s)	
Total	

Strength ☐

Risk Level:

Low (0) ☐

Moderate (1-2) ☐

High (3-5) ☐

Comments

Source(s) of information

Date

6. Leisure/Recreation

a. Limited organized participation	
b. Could make better use of time	
c. No personal interests	
Total	

Strength ☐

Risk Level:

Low (0) ☐

Moderate (1) ☐

High (2-3) ☐

Comments

Source(s) of information

Date

7. Personality/Behaviour

a. Inflated self-esteem	
b. Physically aggressive	
c. Tantrums	
d. Short attention span	
e. Poor frustration tolerance	
f. Inadequate guilt feelings	
g. Verbally aggressive, impudent	
Total	

Strength ☐

Risk Level:

Low (0) ☐

Moderate (1-4) ☐

High (5-7) ☐

Comments

Source(s) of information

Date

8. Attitudes/Orientation

a. Antisocial/procriminal attitudes	
b. Not seeking help	
c. Actively rejecting help	
d. Defies authority	
e. Callous, little concern for others	
Total	

Strength ☐

Risk Level:

Low (0) ☐

Moderate (1-3) ☐

High (4-5) ☐

Comments

Source(s) of information

Date

Part II - Summary of Risk/Need Factors (from page I)

		Prior and Current Offenses/Disposition	Family Factors	Education	Peer Relations	Substance Abuse	Life/Relationships	Personality	Attitudes/Orientation	Overall Total
Risk Level	Total									
	Low									☐ Low (0-9)
	Moderate									☐ Moderate (10-26)
	High									☐ High (27-34) ☐ Very High (35-42)

Part III - Assessment of Other Needs/Special Considerations

1. Family/Parents

☐ Chronic history of offense(s)	☐ Financial/accommodation problems	☐ Abusive mother
☐ Emotional distress/psychiatric	☐ Uncooperative parents	☐ Significant family trauma
☐ Drug/alcohol abuse	☐ Cultural/ethnic issues	(specify) _____
☐ Marital conflict	☐ Abusive father	☐ Other _____

Comments _____

2. Youth

☐ Health problems	☐ Peers outside age range	☐ Third party threat
☐ Physical disability	☐ Depressed	☐ History of sexual/physical assault
☐ Low intelligence/developmental delay	☐ Low self-esteem	☐ History of assault on authority figures
☐ Learning disability	☐ Inappropriate sexual activity	☐ History of weapon use
☐ Underachievement	☐ Racist/sexist attitudes	☐ History of fire setting
☐ Problem solving skills	☐ Poor social skills	☐ History of escapes
☐ Victim of physical/sexual abuse	☐ Engages in denial	☐ Protection issues
☐ Victim of neglect	☐ Suicide attempts	☐ Adverse living conditions
☐ Shy/withdrawn	☐ Diagnosis of psychosis	☐ Other _____

Comments (note any special responsibility consideration including the need for culturally specific services) _____

Part IV - Your Assessment of the Client's General Risk/Need Level

☐ Low Reasons: _____
☐ Moderate _____
☐ High _____
☐ Very High _____

Part V - Contact Level

Administrative supervision		Comments (new placement considerations and court expectations, if applicable)
Minimum supervision		
Medium supervision		
Maximum supervision		

Probation Officer's Signature/Date

Supervisor's Signature _____ Date _____

Previous Director's Signature/Date

Part VI - Case Management Plan

[illegible]

Young Offender Name

Case Management Review Date

A. Changes in Risk/Need Levels

Please record the Risk Level scores from the previous Intake or Case Management Review form and then indicate changes that have taken place in these areas:

	Prior Risk Rating (✓ one)			Changes in Risk Level (✓ one)			Overall Rating	
	Low	Moderate	High	Decrease	Increase	No Change	Prior:	Current:
Offences/Dispositions							☐ Low	☐ Low
Family Factors							☐ Moderate	☐ Moderate
Education							☐ High	☐ High
Peer Relations							☐ Very High	☐ Very High
Substance Abuse								
Leisure/Recreation								
Personality								
Attitudes/Orientation								

Contact Level

☐ Administrative ☐ Minimum ☐ Medium ☐ Maximum

B. Other Changes

Indicate any other changes in client circumstances, including new charges, court appearances, contacts since last review

C. Non-compliance with Court Order (Action taken/Comments)

D. Progress/Revisions in Case Management Plan

Review current case management goals and any progress/revisions to plan:

Goal 1. ☐ Achieved ☐ Partly Achieved ☐ Not Achieved

Comments: _____

Goal 2. ☐ Achieved ☐ Partly Achieved ☐ Not Achieved

Comments: _____

Goal 3. ☐ Achieved ☐ Partly Achieved ☐ Not Achieved

Comments: _____

Goal 4. ☐ Achieved ☐ Partly Achieved ☐ Not Achieved

Comments: _____

Signature of Case Manager

Date

Signature of Supervisor/Principal Director

Date

Item Scoring Key

Part I: Assessment of Risks and Needs

1. Prior and current offences/dispositions

- a. 3 or more prior convictions: check this item if the youth has had 3 or more convictions prior to the convictions that are currently being dealt with.
- b. 2 or more prior failures to comply: these include failures 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 ever been referred to open or secure custody.
- e. 3 or more current convictions: the youth has received three or more convictions for the current disposition(s).

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).

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.

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.

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 anti-social 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.

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).

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.

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.

Part II: Assessment of Other Needs/Special Considerations**1. Family/Parents**

- a. chronic history of crime: check item if members of the youth's immediate family (parents or siblings) 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 in 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, counsellors 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 of escapes: there is a history of 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.

APPENDIX B

Ministry Interim Risk Indicator Form

Ministry Interim Risk Indicator Form
(Abbreviated version)

YOA PLACEMENT CONSIDERATIONS

Young Offender Name _____
Status _____
Client ID _____
Case Manager _____

Common Indicators

1. Previous suicide attempt or serious self-injury _____
2. Previous sexually or physically assaultive behaviour _____
3. Previous assaultive behaviour aimed at recognized authority figure _____
4. Previous convictions for violent offences _____
5. Previous incidents involving use of weapons _____
6. Previous incidents of fire setting _____
7. Previous escape from custody _____
8. Previous diagnosis of psychosis _____
9. The existence of a third party who meets one of the above criteria and poses a threat to the young person or his/her care givers _____
10. Other indicators (specify): _____

Judged to be High Risk (Yes/No; Comments): _____

Reasons for Placement Decision: _____

APPENDIX C**Table 15: FREQUENCIES OF AGES**

AGES	TOTAL SAMPLE	MALES	FEMALES
12	13	12	1
13	39	37	2
14	115	95	17
15	193	165	28
16	71	58	13
17	2	1	1

APPENDIX D

Table 16: NUMBER OF SUBJECTS PER OUTCOME MEASURE

	TOTAL SAMPLE	MALES	FEMALES
Ministry Interim Risk Indicator Form	425	365	60
Risk Judged by Case Manager	421	361	60
Number of New Convictions	436	373	63
Any New Convictions	436	373	63
Any Evidence of Recidivism	436	373	63
Technical Violations	436	373	63
Cooperation	434	372	62
Compliance with Conditions	435	373	62

END

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FIN