Running Head: STRENGTH AND RISK AS PREDICTORS OF BEHAVIOURS OF INCARCERATED YOUTH

Strength and Risk in Incarcerated Youth

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Abstract

Assessment of delinquent youth typically centers around deficits and pathologies. There is an emerging consensus that identifying strengths and protective factors is crucial to develop programs that adequately address the needs of troubled youth (Epstein, Rudolph, and Epstein, 2000; Hoge, Andrews, and Leschied, 1996). Strengths and protective factors may also be important determinants of how youth respond to treatment and incarceration. Research points to healthy family functioning, pro-social attitudes, positive peer relationships, and school adjustment as variables which contribute to the resilience of at-risk and delinquent youth. Some research suggests that even youth at high risk for conduct and behavioural problems, may be resilient as a function of the presence of important protective variables. The present study examined the relationships between strengths in family functioning, school functioning, and peer relations on both self-reported behaviour and staff behavioural reports of incarcerated adolescents. Interactions between these strengths and risk factors, in areas including family functioning, attitudes, and personality and behaviours were also examined, to determine the mitigating effect of strengths on risk factors. Findings indicated that risk factors, (i.e., overall risk level, risk in personality and behaviour, and attitudes and orientation), and family and peer relationships, specifically attachment, were related to outcome measures of self-reported difficulties, delinquency, aggression, and staff reported behavioural incidents. The findings with regard to formalized strength-based assessment did not implicate this assessment strategy as a useful one for predicting youth's behaviour while incarcerated. These findings are discussed within the context of strength-based theory, as well as findings of research conducted on risk and delinquency, and attachment and delinquency. Limitations and directions for future research are also discussed.

Strengths and Risks of Incarcerated Adolescents

Assessments of children and youth have historically focused on individual limitations, weaknesses and pathologies, to the exclusion of looking at strengths, or protective factors (Epstein, Rudolph, & Epstein, 2000). An understanding of pathology and deficits is crucial to the understanding, planning, and treatment decisions that are made regarding youth-at-risk, and more specifically, young offenders. However, an understanding of strengths, protective factors and other aspects which contribute to the resiliency of at-risk and incarcerated youth, are increasingly being documented as important to consider when looking at the needs of these youth (Rutter, 1987; Born, Chevalier, & Humblet ,1997; Ayers, Williams, Hawkins, Peterson, Catalano, & Abbott, 1999; Epstein, Rudolph, & Epstein, 2000). Only a narrow understanding of the needs of a youth can be determined when one looks solely at the weaknesses of an individual. (Epstein et al., 2000). Determining the effects of strengths and protective factors in relation to risk factors will help to clarify both the importance and the role of assessing strengths, as well as weaknesses, when considering placement decisions, treatment, and community involvement for young offenders (Pollard, Hawkins, & Arthur, 1999). One of the most consistent findings on protective factors in adolescent offenders and at-risk youth is that youth who have strengths in the areas of either family functioning and/or school functioning are more likely than youth with deficits in these areas to either resist engaging in delinquent activity, or if having engaged in delinquent activity, they are more likely to desist from involvement in criminal activity (Born et al., 1997, Ayers, Williams, Hawkins, Peterson, Catalano, and Abbott

(1999).

Caldwell and Altschuler (2001) pose the question: Do a child's protective factors negate those factors which put them at risk for delinquent behaviour? They examined both risk and protective factors and the contribution of these factors to the resiliency and desistance of adolescent gang members. Their analysis lead them to theorize that protective factors may be the key to helping at-risk and delinquent youth, by using strengths to negate some of the impact of risk factors. In fact they conclude that one of the most notable findings on risk factors for gang involvement is that risk factors may be too difficult to change, or at least unlikely to change. They posit that in light of such findings, it is important to look at protective factors as the key to working with this particular population. However, a consensus has not been reached on whether it is strengths or risk factors that need to be assessed in delinquent and at-risk youth. Pollard et al. (1999) concluded from their analysis of strength and risk factors that it was insufficient to look solely at strengths. They suggested that researchers investigate both concepts in order to better understand the relationship between strengths, weaknesses, and conduct problems. These recommendations have lead to the present research which will look at the impact of both risk and protective factors on the behaviour of incarcerated adolescents. The moderating effects of strength on risk will also be examined.

Strengths and Protective Factors

Strengths, protective factors, and resiliency are increasingly being seen as important factors to consider when assessing behaviourally and emotionally troubled youth (Epstein, Shapiro, & Epstein, 2000; Rutter, 1987). The terms strength and protective factors may be seen as interchangeable, however there is a distinction between the two concepts. Strengths are defined by Epstein (1998) as the positive aspects, emotions and behaviours of a person's life.

Protective factors are defined as those strengths or competencies which act to mitigate some factor which puts an organism at risk (Rutter, 1987). The construct of resilience in delinquent youth has been more difficult to define. Resilience is typically defined as an individual not developing any deviant behaviours, despite being exposed to numerous risk factors and vulnerabilities (Born et al.,1997; Rutter, 1999). With a delinquent population, deviant behaviours have already emerged. Resiliency for this population then is seen as behaviour that is better than the average behaviours of their incarcerated peers, despite similar exposure to risk.

Garnefski and Okma (1996) found that current problems at school and at home were predictive of involvement in aggressive and delinquent behaviours, such as theft, involvement with the police, and vandalism. Hoge Andrews, and Leschied (1994) reported a relationship between the delinquency of adolescents and the broad social context that included peer relationships and school achievement. Pollard et al. (1999) also reported the importance of documenting the effects of risk factors on behavioural problems in adolescence, citing involvement in school, and the perception of benefits from school involvement as predictors of involvement in delinquency. Thus, the effect of risk factors has been examined in terms of those that increase the likelihood of a youth being involved in delinquent activity, and the ability of risk factors to predict the behaviour of incarcerated youth. The studies cited here have reported that youth who are involved in delinquent behaviours often have academic and behavioural problems in school, and have negative peer influences, and familial difficulties. The effect of strengths and protective factors, by contrast, is an under-explored area in terms of the how they predict the likelihood of delinquency of youth, or the behaviour of at-risk and incarcerated youth. Epstein, Rudolph, and Epstein (2000) report that in looking solely at risks and deficits of behaviourally and emotionally troubled youth, only a narrow view of these youth

is attained. As such, by ignoring the facets of strength that each youth has, a full understanding of their capacities and an adequate meeting of their needs cannot be attained . Pathologizing the youth is seen as a one-sided approach to assessment and Epstein et al. (2000) encourage a more holistic approach to assessment by including an analysis of strengths along with the assessment of risk. In doing so, professionals will be better able to serve these youth, by working with an adolescent's identified strengths, and bolstering areas which are found to be lacking in a youth's life.

Important areas of strength identified by Epstein et al. (2000) include family functioning, school functioning, affective strengths, interpersonal, and intrapersonal functioning. These areas are measured in their formalized strength based assessment, the Behavioural and Emotional Rating Scale (Epstein & Sharma, 1998). A survey of individuals who provide service and care to youth with emotional and behavioural problems indicated that these domains are thought to need particular attention when implementing strength based-planning with troubled youth (Epstein,1999).

This recognition of important areas of children's functioning that could be defined in terms of strengths, by individuals involved in working with and developing policy for children, echoes the theoretical work and reviews by Rutter, (1987) who sees the understanding of risk factors which may dispose youth to negative behavioural and emotional outcomes as important, but not sufficient. Protective factors which Rutter (1987) sees as important are the attachment relationship that a child has with their parent/s and school functioning, i.e., academic achievement, and attachment to school.

Bowlby (1969) defined attachment as a wired in predisposition for an organism to maintain proximity to a care-giver. Attachment theory asserts that care-givers' responses to such

proximity seeking behaviours lays the foundation for a person's internal representations about how others will treat them. Research has implicated poor parental attachment relationships in the development of adolescent antisocial behaviours (Born et al, 1997; Walker, Stieber, Ramsey, & O'Neill, 1991; Marcus & Gray, 1997). Garbarino (1999), in his analysis of why male youth are becoming increasingly violent discusses the four forms of attachment: secure, insecure-avoidant, insecure-ambivalent, and disorganized. Consistent and responsive care-giving which meets the needs of the child will likely yield a child who is securely attached. Securely attached individuals are those who felt a strong bond with a parent during childhood and adolescence. Garbarino (1999) claims that this is critical as research demonstrates that securely attached children are more likely than insecurely attached children to become competent and well-adjusted individuals. Insecurely attached individuals, Garbarino indicates, are more likely to become violent and have problems that involve delinquency.

van IJzendoorn (1997) in his theoretical work on the attachment and delinquency relationship postulates a model of the development of aggression in which attachment is the major contributing variable. van IJzendoorn (1997) reviews the literature which indicates that attachment and antisocial behaviour are both stable over time, as well as being related. He hypothesizes that this relationship is a result of the importance of attachment in the development of empathy and compassion, as well as the regulation of negative emotions. Empathy, compassion, and emotional regulation are key variables which are often lacking in individuals who engage in criminal activity. van IJzendoorn's (1997) review highlights that children who have insecure attachments less likely than securely attached children to respond with care and concern to a child in distress. As well, it is reported that insecurely attached children are more often aggressors with other children, compared to their securely attached counterparts. Research

has also demonstrated a relationship between adult criminality and attachment, with severely disturbed adult criminals reporting greater pathology in their past attachment relationships, than comparison groups. van IJzendoorn (1997) iterates that the development of attachment and behavioural problems and criminality go hand in hand.

Marcus and Gray (1998) in their research on attachment and delinquency, posit that it is close relationships, or attachment relationships with family or other adults involved in the lives of children and adolescents, that provide youth with emotional support or insecure relationships, and that it is these early relations that may dispose youth to become angry and reactive when faced with conflict with others. Work by Marcus and Gray (1998) demonstrated just this. They found that male adolescents who engaged in violent behaviours were more likely than their non-violent peers to have had rejecting mothers and anxious attachments in their current relationships.

The researchers and theorists discussed above, support the work of Rutter (1987), who pleads the case for understanding those protective factors which may act as innoculating agents against such risk factors as temperamental adversity, and impoverished neighbourhoods where violence and the rampant availability of substances are serious problems (Perski & Shelton, 2000).

Leschied and Thomas (1985) looked at factors and considerations needed to create effective residential programming for hard-to-serve youth. They illustrate concepts which support the case for differential treatment of incarcerated adolescents. The conclusions of this research were that young offenders are not all created equally and as such, that treatment methods need to be related to different treatment goals for different types of offenders. These findings are in keeping with the central beliefs in formal strength-based planning; that

programming must be individualized in order to be effective. (Epstein, Rudolph, and Epstein, 2000). That is, Leschied and Andrews (1985) posit that for programming to reach its maximal effectiveness, it needs to be geared to individual offenders, rather than a cookie-cutter implementation. Epstein and Sharma (1998) speak to this in their description of the strength-based perspective. They state that talents and capabilities of children and youth are unique to each individual, and that programming which is implemented to build positive outcomes, such as reduction in behavioural problems like delinquency, should also be unique and individualized. Leschied and Andrews (1985) evaluated a residential facility which tailored its programming to the individual needs of its residents: hard-to-serve delinquents. The treatment plans were such that staff worked with the youth individually, at their own developmental level in terms of interpersonal maturity and integrative complexity. That is they worked with the youth and what the youth could bring to treatment - in effect strength based treatment. The results of the individualized "strength-based" treatment was positive: for those who re-offended, offense rates were much lower than they were upon entering the institution, and a high number of adolescents graduating from the program were involved with school or jobs at follow-up. These findings support developing programs for youth that cater to their developmental level and strengths. In seeing differing levels of development (eg., moral development, identity development) and strengths as positives to be worked with, rather than focusing on deficits to overcome, programming effectiveness may increase.

Hoge, Andrews, and Leschied (1996) examined both risk and protective factors in a sample of incarcerated youth. Their findings with regard to protective factors were that positive peer relations, good school achievement, compliance with authority, and good use of recreation time were predictors of positive outcomes for these young offenders. That is, youth who

demonstrated these capacities were less likely to re-offend and showed greater adjustment. The protective factors acted as innoculators to re-offending and predictors of adjustment at all levels of risk. The authors concluded that in order to better serve adolescent offenders, strengths, as well as risks should be assessed when determining the programming that is necessary for rehabilitation and reintegration.

Of the myriad protective factors which have been explored, those which show the most consistent findings with regard to mitigating risk are parent and family variables, and school experiences (Rutter, 1987; Rutter, 1999; Ayers, Williams, Hawkins, Peterson, Catalano, and Abbott 1999). The parent child relationship may be one of the most important protective factors for contributing to the resiliency of an individual. Rutter (1987) reports that the presence of a positive parent-child relationship is a mitigating factor in whether or not a child will be hospitalized for psychiatric problems.

Vitaro, Bredgen, and Tremblay (2000) examined the moderating effects of three sets of variables on the relationship between male adolescents' delinquency and the delinquency of their best friend. The three sets of variables were personality variables (i.e., disruptiveness during childhood, attitudes toward offending), familial variables (monitoring by parents, attachment to parents), and social variables(other peer deviancy). They found a main effect for best friend's deviancy; those with delinquent best friends were also likely to be delinquent. Parental monitoring and attachment together moderated the delinquent best friend variable; for adolescents with high levels of monitoring and low levels of attachment, best friends' deviancy was positively related to subsequent delinquency. Conversely, for those youth who had high levels of attachment to their parents and low levels of monitoring, best friend's delinquency was not related to subsequent offending behaviour. Monitoring may restrict those peers that a youth

associates with, but once such peers have been befriended it is the affective tie that parental attachment provides a youth which will buffer the youth from becoming involved in delinquent activities. For those youth who subscribed to antisocial attitudes, best friend's deviancy was predictive of involvement in delinquent behaviour, but for those youth with conventional, or pro-social values, best friend's deviancy was not predictive of involvement in delinquent behaviours.

Similarly, Ludwig and Pittman (1999) found that pro-social values, self-efficacy and perceptions of self as trustworthy were related to lower levels of delinquency and other risky behaviours, such as drug use and risky sexual practices. These findings with regard to attitudinal and internal constructs demonstrate that it is not enough to look at external factors such as school, and family, but that it is crucial to understand those strengths which lie within the youth.

Born, Chevalier, and Humblet (1997) examined resiliency factors and their effect on the desistance and delinquent careers of incarcerated adolescents. Resilient youth were those youth who displayed greater maturity and less aggressiveness and cruelty, and showed interest in others. Resilient youth were more likely than delinquent youth to engage in a steady relationship with a same-sex parent and/or another adult. They were also found to have committed attachments to their teachers, and were less likely to have received a diagnostic label than their less resilient peers. Born, Humblet, and Chevalier (1997) point to the fact that the greatest predictors for resiliency were intra-individual; that is they were factors such as maturity, less cruelty to others, etc., rather than attachments to others, i.e., teachers and parents. However those youth who were classified as more mature, etc., also were more likely than youth who were not classified as such to have formed attachments to a parent and/or a teacher. From an attachment perspective, the explanation for the greater maturity, and the host of other intra-individual variables related to resiliency, may be those attachments to parents and teachers. van

IJzendoorn (1997), in his model of the developmental pathways to antisocial behaviour, posited that the absence of an attachment network, along with factors such as temperamental dispositions, may lead to a lack of internalization and lower moral reasoning. Thus, the greater maturity and interest in others that were found in the resilient youth by Born et al.'s (1997) may have been a result of attachments that they had formed.

Eddy and Chamberlain (2000) illustrated the important role that family plays in adolescent delinquent behaviour. Examination of the mediators of successful therapy with young offenders revealed that greater family functioning and fewer associations with delinquent peers led to a decrease in adolescent offending behaviours. Family functioning was defined as supervision, discipline, and positive parent-child relationship. These findings lend support to family strengths functioning as a protective factor, and delinquent peer associations functioning as a risk factor for delinquency. Family cohesion was also found to be an important protective mechanism by Brown, Henggeler, Brondino, and Pickrel (1999). In their analysis of protective factors in substance-abusing and dependent juvenile offenders, they found an inverse relationship between family cohesion and externalizing disorders. This, the authors concluded, could be explained within the theoretical context that by being a part of a supportive family context, risk factors for externalizing behaviours are less able to influence the youth.

Another of the protective factors reported by Rutter(1987) as important to consider, is that of school experiences. He reported that those with greater pleasure and a sense of accomplishment related to school were seen as better planners, i.e ., more able to gain a sense of control in their lives. He suggested that those who had positive school experiences were gaining a general sense of mastery with regard to their lives, as well as increased feeling of self-esteem and self-efficacy. These resiliency factors, along with a host of others, are seen by Rutter as

diminishing the effects of risk factors associated with negative environments.

Ayers, Williams, Hawkins, Peterson, Catalano, and Abbott (1999) examined the correlates of both the desistance and persistence of delinquent behaviour. Correlates of desistance for adolescent males were substantially related to school functioning. Male and female youth who desisted from problem behaviour were likely to have high skills in the area of schoolwork, more attachment to school, a greater commitment to school, and higher grades in school. Characteristic of female desistors alone was family involvement and family communication as well as family control.

Deescalation of antisocial involvement for adolescent males was related to good skills in relation to schoolwork, as evidenced by better scores on a standardized test of achievement. Deescalators, also reported more rewards by being involved in school. The findings indicate the importance of family as a protective factor in reducing delinquency. The most outstanding finding from this research though, is the importance of variables related to school functioning, in their ability to offset the development of more serious juvenile delinquency. School functioning, provides a protective mechanism, regardless of gender, or developmental considerations, such as age (Ayers, Williams, Hawkins, Peterson, Catalano, and Abbott, 1999).

Henry, Caspi, Moffitt, Harrington, and Silva (1999) explored the importance of school as a factor which mitigates risk for delinquency. School attendance was found to be a significant predictor of offending behaviour. Specifically, the risk factor for the youth who participated was poor self-regulation; those youth who completed more school regardless of the level of self-regulation were less likely to be involved in delinquent activity than those poorly self-regulated individuals who were early school-leavers. This finding was true only for males, and held even when family risk factors, social class, and intelligence were controlled for. The authors

theorized that by not maintaining contact with school, those youth at risk for developing antisocial behaviours were free to do so in environments that were less restrictive than the classroom. A youth not in school who receives less adult supervision and has more opportunity to associate with delinquent peer groups, and a greater chance to use and abuse substances.

Pasternack and Martinez (1996) described twenty two factors that reliably differentiated between recidivist and resilient youth. Among these factors were strong internal locus of control and positive school experiences. The latter is a consistent finding across the literature; those youth who have positive experiences in the school system, whether it be academic or via extracurricular activities, are often classified as more resilient than those who do not have positive school experiences. Kashani, Jones, Bumby, & Thomas(1999) in their review of psychosocial risk factors, treatment, prevention, and recommendations, support these findings with practical recommendations. They suggest that in order to prevent delinquency, professionals should allocate energies to strengthening family functioning and peer relationships. They also suggest that there be thoughtful implementation of programs into schools which address the needs of at-risk students. These authors posit that expulsion and suspension are no longer acceptable alternatives, as they prevent violence and behavioural difficulties only in the classroom and displace the violence to another arena. Furthermore, school absences merely contribute to the risk that a youth had for engaging in delinquency. Battistich and Hom (1997) looked at the impact that sense of school as a community had on delinquency. Sense of community within the school was defined as the extent to which the school can "act as a functional community". The authors compared students' sense of community across several different schools, as well as looking within schools. Within schools, students with less sense of community displayed greater delinquent behaviour and substance use. Individual schools with

greater sense of school community had lower levels of delinquency and drug use within their schools, than did schools with less developed sense of community.

Research on strengths and protective factors demonstrates the importance of assessing crucial domains of an adolescent's functioning in order for a strength evaluation to be representative of that adolescent's competencies and foundations. Attachment to family members, as well as strengths within the family system, educational and vocational aptitudes, interpersonal functioning as well as a youth's attitudes toward crime are all important areas to consider to identify strengths and the mechanism of protective factors. Without such assessments, interventions may not be appropriately tailored for individual youth.

Risk Factors for Delinquent Behaviour

While the assessment of strengths provides a more optimistic and balanced picture than the often narrowly focused deficit-oriented view (Epstein, Rudolph, and Epstein, 2000), it is not sufficient to understand the needs and treatment considerations for a youth (Pollard, Hawkins, & Arthur 1999). Risk assessments and an understanding of the relationship between risk factors and problem adolescent behaviours is also crucial in order to understand delinquent youth. The construct of "risk factors" refers to factors which either predict or increase the chances that a youth will be involved in delinquent or problem behaviours.

Pollard, Hawkins, and Arthur (1999) asked whether both risk and protective factors were necessary for understanding adolescent behavioural outcomes. They surveyed adolescents and looked at 20 risk constructs and eight protective constructs, as well as aggregated risk and protective scores. They obtained information on school achievement, specifically involvement with school, substance use, and delinquency. Delinquency was defined as the participants reporting being involved in law enforcement officials, theft, vandalism, and involvement in

quarrels. They found an inverse relationship between levels of risk and protection, suggesting that adolescents with high levels of risk may face the added difficulty of not being able to cultivate high levels of protection. They also found that protective factors only had a significant effect in reducing problem behaviours on those youth who had high levels of risk, though they were not successful in completely eliminating problem behaviours. They conclude that while it is important to assess strengths, and to focus preventive interventions on strengthening protective factors, risk levels must be also be taken into consideration, as even the highest levels of protection do not completely negate the highest levels of risk.

Of the many risk factors associated with the developmental outcomes of juvenile delinquency, family factors, school factors, and peer factors are seen as the greatest circumstances contributing to delinquency (Loeber and Farrington, 2000) . Garnefski and Okma (1996) examined the influence of family, school, and peers as risk factors for the development of addictions and aggressive and criminal behaviour in adolescents. Family risk was defined as negative feelings about home, having serious problems at home, and being involved in serious incidents of quarreling. School risk was defined as negative feeling about school, serious problems with teachers, and incidents of quarreling with teachers. Peer risk was defined as negative feelings about peers, having serious problems with peers, and having serious incidents of quarrelling with peers. Youth who reported greater levels of aggressive and violent behaviour were found to report twice as many negative feelings about home, and were involved in regular quarrels with their parents, as well as reporting serious problems at home. They also reported three times more negative feelings about school, were more often involved in frequent arguments with teachers, and had serious school problems. They also had greater problems with their peers, and were twice as likely to engage in frequent fights with friends. These results

indicate that behaviourally aggressive and violent youth are characterized by regular fighting and problems with important figures in their lives, in multiple contexts. While the authors of this study acknowledge the lack of any understanding of causal directionality, their findings do concur with the greater body of knowledge surrounding risk factors for youth delinquency suggesting that school, family and peer variables are crucial links in understanding the behavioural difficulties of this population.

Born, Chevalier, and Humblet (1997) looked at the impact of resiliency and risk on the desistance of the delinquent careers of adolescent offenders. Variables which were important for the desistance of offending behaviour were attachment to an adult, low heterogeneity of offending behaviour, few offences, and perceiving their time within the institution as a successful. Success was reported by the adolescent: Did they think that they had benefitted from their experiences while institutionalized? As well, educational personnel were more likely to be satisfied with the outcome of resilient youths' stays in the institution. Conversely, those youth who were identified as at risk for persistent delinquent careers were likely to come from families that were chaotic and where there was criminal activity by the parental figures. As well these youth were characterized as being psychologically unstable. They were often characterized as having narcissistic, sadistic, and paranoid tendencies, were unable to experience guilt, and their offending behaviour was manifested as violent and serious. The entire experience of institutionalization was examined, and the hypotheses about variables contributing to desistance/persistence of delinquency and gains from the experience of detainment were supported; that is youth with greater protective factors were more likely to benefit from the entire experience of incarceration.

Hoge, Andrews, and Leschied (1996) examined risk factors in a sample of young

offenders. They found that family dysfunction and problems with parenting were related to an elevated risk of offending as well as poorer overall adjustment, as measured by an index of compliance with disposition conditions. Their findings concur with those documented by other research; that a youth's risk for offending is elevated if there is problems within the family context. Hoge, Andrews, and Leschied (1994) tested three hypotheses with regard to adolescent delinquency: family cohesion and attachment to parent figures would be predictive of delinquent behaviour; associations with delinquent peers would contribute to delinquent behaviour, particularly when there were family cohesion and/or attachment difficulties; and attitudinal support for criminal values, in addition to spurning conventional values, would be predictive of delinquent behaviour. Support was found for these hypotheses; family structuring problems, family relationships, negative peer associations, and delinquent attitudes were predictive of offending by youth, regardless of sex or age. The authors conclude that because there are a broad range of contexts in which one finds risk factors, assessment efforts must be far-reaching. As well, the authors speculate that further consideration must be given to the interaction of risk factors.

Walker, Stieber, Ramsey, and O'Neill (1991) examined predictors of delinquency among at-risk versus antisocial boys, including school achievement, parental discipline, and parental involvement. They found that delinquency in grade seven was best predicted by parental involvement and discipline. That is, children of parents with weaker disciplinary skills, and less involvement with their children, had a higher rate of negative behaviour. As well, the delinquent boys had lower mean scores on measures of academic skill and problem solving ability. The authors conclude that this is yet further support for the importance of parenting effectiveness in the developmental trajectory of delinquent youth. They also posit that to understand and predict

deviant child behaviours, it is crucial to assess familial and academic domains. Marcus and Gray(1998) also found that parent-child relationships and academic skill differentiated between two groups, violent and non-violent delinquent youth. While the groups were similar with regard to some of their social experiences, there were other experiences which discriminated between the two groups. Violent offenders had greater perceived rejection from their parent and were found to be more anxious in their attachment relationships than non-violent offenders. As well, they were more likely to have lived with a parent who had a criminal past. Violent offenders also had some academic problems, as evidenced by lower reading achievement, that were not evidenced by the non-violent sample.

Grenier and Roundtree (1987) developed a model to predict recidivism among adjudicated adolescents. They found that those youth at greater risk for reoffending were those who associated with deviant peers or had delinquent siblings, had school problems, i.e., repeated absences, suspensions, expulsions, and failure, and a negative quality home life. This latter variable was operationalized as family history of drug or alcohol abuse, poor relationship between the youth and the parents, marital discord, lack of parental control over the child, and neglect or abuse of the child at the hands of the caregiver. The authors conclude that greater intervention efforts should be made for youth with these risk factors, in order to reduce recidivism. Further understanding the impact of risk factors on delinquent youth both at large and in custody settings may provide insight into the more appropriate allocation of limited resources.

Additional evidence of the importance of considering school as risk factor is provided by Kingery, McCoy-Simandle, and Clayton (1997).They compared more violent and less violent youth on risk factors for using violence. They found that negative attitudes about school

significantly discriminated between less violent and more violent youth. On top of negative attitudes towards school, the more violent youth were also more likely to come from a home where the father was absent, and where the mother had attained a lower educational standing. They concluded that these factors place the youth at risk for involvement with violence both as perpetrator and victim. As crucial coping resources are eliminated, such as a father at home, or the perception of an approachable teacher or other school employee the likelihood that a youth will be involved in violence increases. The authors point to the importance of documenting risk in youth, and inoculating them against the effects of their prior experiences by teaching skills and ultimately building strengths into vulnerable youth.

Preski and Shelton (2001) examined the influence of contextual, individual and parent factors on outcomes for adolescents. They used a model that attempted to link child maltreatment to the seriousness of a juveniles' involvement with criminal activity. Of the familial variables examined, those predictive of criminal activity were whether the child's mother had mental illness, the mother's involvement with the child, father's substance abuse, siblings' criminal history, drug abuse, and physical illness. They concluded that it is important to assess and address the issues which may be within the young offender (eg., diagnoses, behavioural problems), but that it is imperative to also look at family functioning and external risk factors, in order to implement treatments that will be ultimately effective.

Jung and Rawana (1999) examined the risk and needs of a group of adolescent offenders, using an actuarial tool which looked both at individual risk variables (eg., substance abuse, family circumstances/parenting), and an overall risk score. The aggregated risk score was a significant predictor of recidivism. Individual risk factors scores of the scale, which included prior and current offences and dispositions, family circumstances, education and employment,

peer relations, substance abuse, leisure and recreation, personality and behaviour, and attitudes and orientation were also predictive of subsequent offending. However, the aggregated risk score was the strongest predictor of recidivism in the overall sample. The effect of multiple risk factors was also explored by Herrenkohl, Maguin, Hill, Hawkins, Abbott, and Catalano (2000). They examined risk factors within the individual, family, school, peer, and community domains. Particular attention was paid to the additive effects of multiple risk factors. Family variables predictive of violence outcomes were: parents favourable attitudes towards violence, poor family management, low academic performance, parental criminality, family conflict, and sibling delinquency. Other important risk factors predictive of involvement in criminal activity, were low school achievement, school transitions, peer delinquency and gang involvement. The analyses conducted by Herrenkohl et al. (2000) with regard to the additive effects of risk factors showed that the odds for violent acts committed by the youth once they reached age 18 increased with the number of risks the youth was involved in. These findings support not only the consideration of familial and school contexts as important contributors to delinquency, they also make a case for assessing multiple risk factors.

Similar findings with regard to risk were reported by Hodges and Kim (2000). They found that as the number of parental risk variables increased, so did the odds that a youth would fall in contact with the court or some agent of the law. In addition, as parental risk factors increased, the odds of school absenteeism also increased, an additional risk factor for delinquency (Kashani, Jones, Bumby, & Thomas, 1999; Henry, Caspi, Moffitt, Harrington, and Silva, 1999).

In summary, there are a range of risk and protective factors which act to either facilitate a youth's slide into delinquency, or quell that slide. Family functioning, school attendance and

attachment, as well as achievement, attitudinal variables, peer associations, and other individual differences all contribute to the development, or the prevention, of youthful offending. It has become increasingly clear that it is not enough to look at one or two risk factors, or one or two strengths; rather it is necessary to look at several variables and determine the extent to which they influence the development of antisocial behaviours. Equally as important as looking at how a number of variables influence the development of antisocial behaviour, is the dynamic interplay among these variables.

Present Study

While previous research has demonstrated the impact of the various risk and protective factors mentioned, research had been inconclusive about the moderating effect which strengths have on risk and risk level. Hoge, Andrews, and Leschied (1996) did not find that protective factors moderated risk level. However their findings may be limited due to measures which they used in assessing protective factors. They used the Toronto Case Management System, an instrument designed to assess risk, need, and strengths of youth. The reliability and validity of the instrument is not documented, and as such the generalizability of their results may be limited. Conversely, Pollard, Hawkins, and Arthur (1999) did find that strengths moderated risk, but only when the risk levels were high. Such conflicting statements make conclusions about the actual moderating impact of strengths on risk unclear. To date results on the moderation of risk and risk level by strengths and protective factors have been equivocal. One of the purposes of this research is to understand more clearly the moderating effect that strengths have on risk and risk level.

Another purpose of this study is to examine the utility of strength based assessment with

incarcerated youth. Strength-based assessment is typically seen in formulating individualized education programs for behaviourally and emotionally troubled youth(Epstein, Shapiro, and Epstein, 2000). There has been no research to date that uses formalized strength-based assessment with incarcerated youth. Strength-based assessment may provide information above and beyond what risk assessment alone can provide about the probable behavioural difficulties of incarcerated youth. Research that demonstrates the utility of strength-based assessment will encourage the use of the evaluation of strengths of young offenders. It will also provide further insight into incarcerated youth, and the mechanisms underlying resiliency.

Furthermore, previous research has used risk and protective factors to predict behaviour of at-risk youth, or in the prediction of recidivism. Research that uses formalized strength and risk assessment to understand and predict the behaviour of youth while incarcerated is novel. To understand behaviours of youth while they are incarcerated as they relate to strength and risk levels may provide interventionists with critical information regarding the implementation of therapeutic strategies.

The present study examined the effects of strengths and risks on the behaviours of adolescents who are serving sentences in open and closed custody juvenile justice facilities. Behaviours were assessed via self-report measures and staff-reports. Specifically, family and school functioning, acting as either protective or risk mechanisms were explored, along with attitudinal variables and peer relations. Moderator effects were also examined.

Research Question and Hypotheses

Research Question

Do strengths as measured by a formalized strength-based assessment, impact a youths'

adjustment while incarcerated?(as measured by a self-report inventory and relative number of incident reports).

Hypothesis 1

Youth with greater strengths in these areas will have relatively fewer incident reports, and will report fewer behavioural problems, as measured by the self-report inventory.

The second purpose of this study is to determine whether strengths in the areas mentioned above, mitigates factor which may put youth at greater risk for behavioural problems.

Research Question

Do strengths and protective factors mitigate the effects of risk level?

Hypothesis 2

Strengths and protective factors will interact with risk factors such that at higher levels of risk, higher levels of protective factors will be needed to offset the effects of risk.

Method

Participants

Nineteen (6 females and 13 males) youth from Phase One custody settings in Thunder Bay, Ontario, under the jurisdiction of W. W. Creighton Youth Services participated in this study. The mean age of this sample was 14.9 years old , with a range in ages from 12 to 17, and a standard deviation of 1.2 years. The sample consisted of both native and white youth (15 native youth and 4 white youth). Youth from both secure (n=17) and open (n=2) custody facilities participated.

Instruments and Measures

Behavioural and Emotional Rating Scale. Strengths were assessed using the Behavioural and Emotional Rating Scale (BERS) developed by Epstein (1998). The BERS is an assessment tool which assumes that each child, as well as having deficits and areas upon which they can improve, also has strengths that should be assessed in order that each child obtains maximal services. It is a formalized strength-based assessment. Historically, strength-based assessments have been informal, and have consisted of interviews with the youth, their family, and other significant figures in their lives. The BERS is comprised if 52 items, which belong to one of 5 sub-scales measuring intrapersonal strengths, family involvement, interpersonal strengths, school functioning, and affective strengths. The BERS also has an overall strength score. Items are endorsed on a 4-point Likert scale (0=not at all like the child, 1=not like the child, 2=like the child, 3=very like the child). It can be completed by any adult who is familiar with the youth (Epstein, 2000). Research has demonstrated that the BERS has both good reliability (r=.85, test-retest reliability; r=.83 inter-rater reliability) and good validity(r=.73, concurrent validity).

Inventory of Peer and Parent Attachment (IPPA). Further data were collected around the youths family functioning and peer associations, via the Inventory of Parent and Peer Attachment developed by Greenberg and Armsden (1987) . This assessment battery yields scores of overall attachment to maternal and paternal figures, and peers. As well, sub-scales indicative of trust, communication, and alienation from these significant others are also provided by the IPPA. Good reliability for the IPPA has been demonstrated. Cronbach's alpha for the maternal form of the IPPA is r=.87, while for the paternal form it is r=.89. Construct validity of the IPPA has also been established. The IPPA is moderately to highly correlated to family and

self-concept scales of the Tennessee Self-Concept Scale. It is also highly correlated to the Family Environmental Scale.

Strengths and Difficulties Questionnaire (SDQ)(Goodman, Meltzer, & Bailey, 1998). Finally, both pro-social attitudes and behaviours and behavioural difficulties were assessed via the Strengths and Difficulties Questionnaire. This measure has adequate reliability and validity (Goodman, 2001).

Risk Assessment. The Youth Level of Service Inventory (YLSI) devised by Andrews, Robinson, and Hoge (1984) was used to assess risk . The YLSI was chosen for its ability to provide risk levels for eight individual risk factors, as well as an aggregate score of overall risk level, which are both predictive of behavioural problems in youth (Herrenkohl et al., 2000). The YLSI is comprised of eight sub-scales which reflect a youth's risks in the following areas; offence history and dispositions, family circumstances, education/employment, peer relations, substance use, leisure and recreation, personality and behaviour, and attitudes and orientation. The YLSI overall risk score classifies youth into one of four risk categories; low risk, moderate risk, high risk, and very high risk. This instrument is completed by the probation officer of each youth as part of their compulsory supervision of the youth. Jung and Rawana (1999) have demonstrated the predictive validity of this YLSI; those youth who were rated as higher risk according to the YLSI, were more often found to have re-offended, than those youth who were rated as low risk.

Incident Reports. A measure of behavioural adaptation to the residential facility was incident reports. Incident reports (IRs) are documented by the facilities' on-duty Child and Youth Workers. They are recorded for any behavioural incident which a youth is involved in, either directly or indirectly.

Child Behaviour Checklist - Youth Self-Report Form (YSR). The YSR (Achenbach, 1991) was used to further assess the behaviours and problems of the youth while they are incarcerated. The YSR yields scores on a number of scales, including aggressive behaviour, and delinquency. This instrument has demonstrated adequate reliability (r=.79). Subscales of the SDQ will also be used as measures of problems with internalizing and externalizing difficulties.

Procedure

Participants were informed of the nature of the study and presented with an opportunity to participate, which they endorsed or rejected by signing an informed consent letter. The BERS (1998) was completed by staff at the various custody settings who had known the youth for a period of at least two months before they could be considered valid informants for this measure. Concurrently, the youth completed the Inventory of Parent and Peer Attachment, the Strengths and Difficulties Questionnaire, the School Functioning Questionnaire, and the Youth Self Report Inventory form of the Child Behaviour Checklist. As well data on incident reports and risk/need assessment were collected from the youth's file.

Prior to statistical analyses, the data were screened for outliers by examining the standarized scores for each participant on each variable. As well, variables were examined to determine if they were normally distributed. All variables were normally distributed except for the Youth Level of Service Inventory variable, Leisure and Recreation. This variable was transformed to make it more normally distributed, using a log transformation.

Pearson product moment correlations were conducted between the strengths, risk factors, attachment variables, and the measurements of self-reported difficulties and incident reports. See Table 1 for the number of participants that answered each questionnaire. Moderated

regression were conducted to examine whether the relationship of the difficulties and incident reports to risk factors was moderated by strengths.

Results

Risk

Correlations between risk factors and self-reported behavioural difficulties and incident reports are presented in Table2. Risk scores on the attitudes/orientation variable, the personality and behavioural variable, and the total risk score on the youth level of service inventory were related to the self-reported strengths and difficulties, as measured by the Strengths and Difficulties Questionnaire. Risk levels on attitudes and orientation were related to peer difficulties and incident reports. This finding shows that youth with attitudinal difficulties, including antisocial/procriminal activities, not seeking help, actively rejecting help, defiance of authority and callous or little concern for others have more peer difficulties and more incidents. The risk level on personality and behaviours was significantly related to peer difficulties, total difficulties, and number of incident reports. These findings show that youth with inflated self-esteem, physical and verbal aggression and tantrums, attentional difficulties and poor frustration tolerance, and lack of guilt demonstrate poor peer relationships, more self-reported difficulties, such as conduct problems and hyperactivity, and are more often written up by staff as having been involved in an incident in the correctional institution.

Total risk score correlated with conduct problems, total difficulties, self-reported aggression, and number of incidents in the institution. These results indicate that the aggregated risk scores were related to problem behaviours, with higher risk individuals having more self-

reported difficulties and being involved in more institutional incidents.

Strengths

Analyses were conducted to explore the hypothesis that youth with greater strengths would report fewer difficulties, as well as having fewer incident reports. A significant relationship between strength in school functioning and peer difficulties emerged, $r(12)= -.68$, $p<.05$. Youth who were seen by their workers as having strength in the domain of school functioning reported fewer peer difficulties. This was the only strength score that was significantly related to any of the behavioural outcome measures. With the exception of this finding with regard to strengths, these results do not support the hypothesis that greater strengths would be related to fewer problems, and vice versa, that youth reported as being relatively low in strengths would also report that they have greater difficulties, as well as being involved in more institutional incidents.

Attachment

The first hypothesis of this research was that strengths would be related to the number of difficulties that youth struggled with, as well as the number of incidents which they were involved in while in custody. Attachment is considered a variable that can be either a strength or a risk. That is, individuals with secure attachment would be thought to have a strength, or a protective mechanism, whereas poor attachment relationships would be thought of as a risk factor which might impact delinquency. Attachment and difficulties were examined to determine the existence of relationships between these sets of variables. Relationships between maternal, paternal, and peer attachment and the incident reports, self-reported difficulties and self-reported

delinquency and aggression were observed (See Table 4, Table 5, and Table 6). Maternal trust was inversely related to emotional difficulties, and delinquency. Communication with mother was inversely related to delinquency. Positive relationships between maternal alienation and emotional difficulties, total difficulties, and delinquency were found. Inverse relationships between total maternal attachment, and delinquency were also found. The findings with regard to maternal attachment and difficulties indicate that youth with poorer attachment relationships to their mothers reported more emotional difficulties, delinquency, and total difficulties. Alienation from father was positively correlated with total emotional difficulties. This finding points to the fact that youth with troubled relationships with their fathers reported greater emotional difficulties.

Finally, peer attachment variables were also related to the dependent variables. Peer communication was positively related to pro-social attitudes, and inversely related to the number of incidents. Alienation from peers was positively related to emotional difficulties and total difficulties. Finally, total attachment to peers was positively related to pro-social attitudes .Peer relationships were related to pro-social attitudes, such that good communication with peers and total positivity of the relationship with peers was related to higher reporting of pro-social attitudes and behaviour.

Overall the results of the correlational analyses for attachment indicate that relationship difficulties with parents or guardians and peers is related to difficulties, delinquency and aggression, and the number of incidents that a youth is involved in while in custody.

Risk, Strength, and Difficulties

A series of moderated regressions were conducted to determine whether degree of strength and level of risk interacted in their prediction of incident reports and self-reported

conduct problems. These analyses were conducted to explore the hypothesis that strength would moderate risk in the prediction of difficulties and incident reports. Both total risk and strength scores were used as predictors, as well as risk and strengths related to family, school, and attitudinal variables. No significant findings were revealed from this analysis.

Discussion

The present study found that risk was related to behavioural problems and that strengths in the area of attachment were related to fewer behavioural difficulties. While most strengths as measured by the Behavioural and Emotional Rating Scale and the Strengths and Difficulties Questionnaire - pro-social attitudes sub-scale did not relate to self-reported difficulties and incident reports, strength in school functioning related to peer difficulties and attachment variables were related to difficulties and incident reports. The better the reported attachment (i.e., good communication, trust, total relationship and fewer feelings of alienation) to peers and parents that a youth reported, the less difficulties and incidents these youth had.

The analyses conducted on risk variables and difficulties and incidents replicated findings from previous research that the higher the risk level of youth, the greater their difficulties and incident reports. Correlational analyses demonstrated relationships between risk level on both personality and attitudes and peer difficulties, total difficulties, and total number of incidents. As well, significant correlations were found between total risk level and conduct problems, peer difficulties, total difficulties, total number of incidents, and self-reported aggression.

Risk, Strength and Difficulties

The relationships between risk levels and difficulties are consistent with research to date that looked at risk and problem behaviours. Jung and Rawana (1999) found that an aggregate

risk score comprised of scores on various risk factor scales was predictive of recidivism. As well, the sub-scale scores of the risk measure, which tapped risk in areas of family functioning, personality, attitudes, school, leisure, and peers were also predictive of recidivism. Herrenkohl et al. (2000) also found that criminal activity was predicted by scores on risk measures comprised of similar factors, such as family functioning and school functioning. Their research demonstrated that the odds that a youth would be involved in some type of violent crime by the time they reached their eighteenth birthday increased, as the number of risks which that youth was exposed to increased. The present study found that youth who were deemed to be at high levels of risk reported high levels of conduct and peer problems, and aggression, and a high number of total difficulties, as well as more involvement in incidents. The fact that the findings in the current study are similar to the findings in previous studies may be explained by the fact that the aggregate risk score used in this study is similar to the aggregate risk scores used in the studies cited here. Aggregate risk scores were comprised of risk in areas of family functioning, school functioning, and peer relationships, both in the present study and the research done by Jung and Rawana (1996) and Herrenkohl et al. (2000). In fact, the same measure to assess risk was used in the research conducted by Jung and Rawana (1996) and the present study. It may be that youth with risk in several areas struggle with delinquency, aggression and other difficulties, because they have fewer resources to draw on. As more and more of the contexts to which young offenders are exposed become riddled with problems, they are less able to fend off involvement in criminal activity and aggressive behaviour.

Risk scores on the personality and behaviour dimension and the attitudes and orientation dimension of the YLSI were also related to difficulties and incident reports. Youth with risk in the areas of personality and behaviour reported more peer difficulties, more total difficulties, and

were involved in more institutional incidents. Youth with higher risk in the area of attitudes and orientation reported more peer difficulties and were involved in more incidents while incarcerated. The personality and behaviour sub-scale of the YLSI describes youth who may have risk factors such as inflated self esteem, physical and verbal aggression, low frustration tolerance, lack of guilt, and short attention span. The attitudes and orientation sub-scale measured antisocial attitudes, help-seeking behaviours, defiance, and callous attitudes. These findings are in keeping with research in personality and attitudes of offenders. Sigurdsson, Gudjonsson, and Peersen (2001) compared cognitive and personality characteristics of two groups of young offenders; recidivists and desisters. They found that recidivists differed in that they were less pro-social than desisters, and were also less compliant to authority. Ireland (1999) explored the attitudes of bullies and victims of bullying. She found that those who were involved in bullying others, had less empathy than their non-bullying counterparts. The present findings as well as those of Sigurdsson et al. (2001) and Ireland (1999) show that risk in the areas of personality and attitude relate to outcome variables such as acting out behaviour, compliance with authority, and victim empathy.

Attachment and Difficulties

The relationships between attachment variables and difficulties are consistent with theory and research on attachment and delinquency. Garnefski and Okma (1996) found that adolescents who reported more problems at home and problems with peers also reported more aggression and delinquency. Specifically, youth who fought with peers and parents, and had a negative view of their home lives and engaged in behaviours which included theft, physical violence directed at another person, and vandalism. Marcus and Gray (1998) reported a relationship

between attachment and violent offending. Their research revealed that the more anxiously attached youth in their study were also more violent. Hoge, Andrews, and Leschied (1996) also reported that family dysfunction and parenting difficulties related to a youth's compliance with disposition conditions. That is, youth who had greater family dysfunction were not as compliant with sentencing, as youth with fewer difficulties in these arenas.

van IJzendoorn (1997), in his theoretical model of the development of antisocial and aggressive behaviour, postulated that individuals with poor attachment relationships are unable to develop appropriate emotional regulation and empathy, which in turn lend themselves to the development of delinquent behaviour. The present research found that young offenders who reported poorer attachment relationships with parents and peers, reported more total problems, had more emotional problems, greater self-reported delinquency, and more incident reports. These findings are consistent with both theory and research on antisocial behaviour and attachment relationships. These findings might be interpreted such that youth with poorer relationships are less able to emotionally regulate, and as such are also less able to stop themselves from becoming involved in aggressive and delinquent behaviours. These difficulties may have arisen from a lack of moral internalisation, compassion, and empathy, all of which develop within the attachment relationship that a child has with caregivers.

Explanation of Findings

The findings with regard to strengths and how they related to the difficulties reported by and about youth, for the most part did not support the hypotheses, that a) strengths would be related to difficulties, and b) that strengths would moderate risk. These findings might be due to a number of reasons. First, the Behavioural and Emotional Rating Scale was not normed with

young offenders, but rather with emotionally and behaviourally disturbed youth. While many youth in custody may be emotionally or behaviourally disturbed, this population is considered first and foremost one whose concerns are related to delinquency and the justice system, not mental health. No formalized strength-based assessment exists that was designed specifically for young offenders.

Also relating to the scale used to measure strengths is the ethnicity of the youth with whom it was used. The percentage of youth in the normative sample for the BERS who were Native American was 1% and the percentage of White youth was 80%. This is different from the sample that we obtained, where our sample makeup was 21% white youth and 79% native youth. Domains which are considered important areas of strength may be different for native and white youth. There is no research to date that looks at this possibility, though research which addresses this possibility is needed if this strength assessments are to be valid for both ethnicities. Native youth, at least those who are under the care of Creighton Youth Services, are encouraged to learn more about their culture and native spirituality. This may be an important difference that should be considered when doing strength assessments.

Another possible explanation for the findings that strength was not related to behavior while risk was, relates to the work and theory of Pollard, Hawkins, and Arthur (1999). They posit that strengths, or protective factors and risk, are not independent constructs, and that among those youth who display greater risk, it is difficult to find strength. As such, with the sample used for this research, the majority of the participants were rated by their probation officers as either moderate or high risk. With such a deficit-strong sample, the lack of strength is not surprising if one subscribes to the theory of Pollard, Hawkins, and Arthur (1999).

Implications

Practical Implications. There are several practical implications from the present research. Attachment variables did relate to incidents, difficulties, and pro-social attitudes. This finding is in keeping with both research findings (Marcus and Gray, 1998) and theory (van IJzendoorn, 1997) that attachment is an important factor to consider when looking at the delinquency of youth. This finding may have implications for strength-based implementation. While fostering healthier attachments to parents may not be a feasible treatment goal for incarcerated youth, attachments to other adults may be a goal for strength-based implementers, who may want to build strengths or protective factors in delinquent youth. For example, fostering a positive relationship with probation officers and other case workers may be an important consideration when working with this population.

The finding that strengths were not related to behavioural outcomes may suggest that strength assessment is not necessarily useful in determining which young offenders will be involved in institutional incidents and have behavioural problems. However, it does not rule out the use of strength-based planning and implementations altogether. Epstein and Sharma's (1998) conceptualization of strength-based assessment and strength-based planning postulates that because a child does not display a strength in certain areas does not mean that those areas should be considered weaknesses. Rather, they suggest that the individual had not been exposed to the requisite opportunities to learn the competencies associated with those strengths. This hypothesis has implications for both strength-based assessment and treatment of delinquent youth. Currently, the progamming that is being provided for the delinquents under the care of Creighton Youth Services receive Cognitive Behavioural Treatment that focuses on changing the faulty thought patterns and behaviours of these youth in an effort to rehabilitate them. Strength-based theory would suggest that this is not the way to build strength, and ultimately resiliency,

in these youth. Strength-based theory indicates that strength-based planning must go hand in hand with risk assessment. In order to reduce risk, which may be reframed as a youth's misfortune of never having had an opportunity to develop specific competencies, strengths in areas of school functioning, family functioning, and peer relations should be developed, along with the implementation of cognitive-behavioural treatments. A multi-systemic approach such as this would be in keeping with the strengths perspective, as well as maintaining the current and necessary risk assessment aspect to planning with young offenders.

Theoretical Implications The main implication for research that can be extrapolated from the present study is that strength-based assessment should be studied with a sample that is larger than the sample used in the present study. Moderator analyses may reveal more about the relationship between strength and risk factors in their prediction of behavioural difficulties, if the sample size was increased. As well, more powerful statistical procedures could be conducted with data sets which had larger numbers of participants, which in turn would allow for a clearer understanding of the impact that strength and risk together have on the behavioural outcomes of these youth.

Another implication that might be drawn as a result of the present study is the need for an measure of strength that focuses specifically on the resources of young offenders. In relation to the normative sample for the BERS, young offenders may be lacking in strengths. However, a measure used to assess the strengths of young offenders, relative to other young offenders, may provide researchers and programmers a clearer understanding of the capabilities and needs of young offenders.

Limitations

The present study is limited by the small sample size. Caution should be used in generalizing these findings to the young offender population, as the small sample size does not provide much statistical power, and as such the findings reported are subject to Type II error. Another limitation of the present study is the correlational nature of the study. No causal assertions can be made about the impact of strengths on behavioural outcomes. As well, the small sample does not allow for the use of multivariate statistical analyses Analyses such as canonical correlations and profile analysis would lend themselves to research such as this in giving a description of what young offenders look like in terms of their strengths, risks, and behavioural outcomes.

Directions for Future Research

It is possible that strengths were not found to be related to outcome measures because of the normative sample that was used in the development of the Behavioural and Emotional Ratings Scale. The present study used a sample of young offenders, while the BERS used a broad sample of emotionally and behaviourally disturbed youth. The development of an inventory used to assess strengths which are specifically relevant to incarcerated youth might allow for more valid measures of strength in this population.

The development of an instrument used to assess strengths in incarcerated youth should also take into account the unique ethnic make-up of the young offender population. In northwestern Ontario at least, there is an overrepresentation of Native youth in phase one custody settings. For assessments to be valid for all youth, cultural morays must taken into consideration.

Future research should also attempt to include more participants. The present research was limited by time, and as such the optimal number of research participants was not obtainable.

Finally, future research should attempt to look at differences between genders. The sample used for the present research was too small, and the gender distribution too uneven, for analyses to be conducted which looked at gender differences. The same can be said for analyses which looked at the differences between native and white youth. Researchers in the future should determine if there are any differences between the two ethnic groups. This might lend programmers a better understanding of the different needs of these two distinct cultures, as well as specific implementations that should be used with the different groups.

Summary

The present study examined the relationship between strengths, risk factors, and behavioural difficulties. Overall, the present study found that risk was related to difficulties and incident reports. As well, some of the measures of strength, particularly attachment, were related to measures of behavioural outcomes. The relationship between attachment, particularly attachment to mother and to peers, and difficulties and incident reports was demonstrated in this research, such that young offenders with poor attachments reported more difficulties and were involved in more incidents within the institutional setting.

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Appendix A

Information Letter to Participants - Young Offenders

Strengths and Risk Factors in Incarcerated Adolescents

Dear Participant,

We are conducting a study to look at the things in your life that help you to do well, as well as things that seem to be difficulties for you. The intent of this research project is to (a) investigate the relationship between strengths and risk factors and behaviours and (b) to develop a new measure used to assess strengths in youth.

If you choose to participate in this research, we will ask you fill out some questionnaires for us, about your relationships with your parents or guardians, your relationships with your friends, your feelings and behaviours, as well as asking you some questions about school, and your attitudes about crime. There are no right or wrong answers to these questions; we are interested in knowing what you think and feel. It may take you an hour or two to complete these questionnaires. If you need to we can take a break, at any time. We will also be asking the people here at (Name of Institution) some questions about these things, and using information from your file, if you agree to participate in this project. The things that you tell me, and the answers that you give to the questions that we are asking, will be kept confidential. As well, if you do not wish to participate in this, no one here at Creighton Youth Services will told that you are not participating. That is, we won't give your individual information out to anyone, either here at Creighton Youth Services or outside of here. We will keep your answers in a secure place for a period of seven years. This secure place will either be Lakehead University or Lakehead Regional Family Centre. The only way that we would have to break confidentiality would be if you alerted us to the fact that either yourself or someone else was at risk of being hurt, or that you were going to hurt yourself. Your participation in the study is entirely voluntary. If at any time you wish to withdraw, you are free to do so, without any consequences.

Upon completion of the research in the next few months, you are entitled to information about the results of the research. If you would like access to this information, you will be able to contact either myself or Dr. Rawana, by calling us at the University, and leaving a message for us with the secretary at 343-8441.

Sincerely,

_____

Dr. E. Rawana, C.Psych.

_____

Hilary Cartwright, Masters of Arts Candidate

Appendix B

Information Letter to Participants - Informants

December 2001

Dear Creighton Staff,

Thank you for helping us with this research, "Strengths and Risks in Incarcerated Youth". We are conducting a study to look at the things in the lives of the young offenders that help them do well, as well as things that act as difficulties for them. The intent of this research project is to (a) investigate the relationship between strengths and risk factors and behaviours and (b) to develop a new measure used to assess strengths in youth. The data that you provide will help us immensely in evaluating the utility of strength-based assessment for Creighton Youth Services. Please complete the Behavioural and Emotional Rating Scale (BERS) and the Strength Identification Inventory in for the youth whose name appears on the front of this envelope. Then have another staff member complete the Strengths Identification Inventory for the same youth, so that we have independent rater assessments. This will help us to evaluate the effectiveness of this inventory when used by different raters. Then place all completed documents into the envelope and seal the envelope. All of the information that you provide us with will be kept entirely confidential; neither the youth about whom you are providing information nor any other staff members will have access to this information. If you have any questions, please do not hesitate to contact me at 344-0263.

Thank you for your help!

Sincerely,

_____

Hilary Cartwright, MA Candidate

Appendix C

Consent Form

My signature on this sheet indicates whether or not I agree to participate in a study by Hilary

Cartwright and Dr. Edward Rawana, on STRENGTHS AND RISK FACTORS IN

INCARCERATED ADOLESCENTS and it also indicates that I understand the following:

1. If I participate, I am a volunteer and can withdraw at any time for the study
2. If I participate, There is no apparent risk of physical or psychological harm
3. If I participate, the data I provide will be confidential, unless it is of harm to myself or somebody else.
4. If I participate, I will receive a summary of the project, upon request, following the completion of the project.

I have received explanations about the nature of the study, its purpose, and procedures.

☐ I agree to participate ☐ I do not agree to participate

Name of Participant (Please Print)

Signature of Participant Date

Signature of Researcher Date

Appendix D

Inventory of Peer and Parent Attachment

IPPA

This questionnaire asks about your relationships with important people in your life; your mother and your father. Please read the directions to each part carefully.

Some of the following questions are about your feelings about your ***MOTHER*** or the person who has acted as your mother. If you have more than one person acting as your mother (e.g., a natural mother and a step-mother) answer the questions for the one you feel has most influenced you.

Please read each statement and write **ONE** number that tells how true the statement is for you now.

1 = almost never or never true
2 = not very often true
3 = sometimes true
4 = often true
5 = almost always or always true

___1. My mother respects my feelings.

___2. I feel my mother does a good job as my father.

___3. I wish I had a different mother.

___ 4. My mother accepts me as I am.

___ 5. I like to get my mother's point of view on things I'm concerned about.

___6. I feel it's no use letting my feelings show around my mother.

___ 7. My mother can tell when I'm upset about something.

___ 8. Talking over my problems with my mother makes me feel ashamed or foolish.

___ 9. My mother expects too much from me.

___ 10. I get upset easily around my mother.

___ 11. I get upset a lot more than my mother knows about.

___ 12. When we discuss things, my mother cares about my point of view.

__ 13. My mother trusts my judgment.

__ 14. My mother has her own problems, so I don't bother her with mine.

__ 15. My mother helps me to understand myself better.

__ 16. I tell my mother about my problems and troubles.

__ 17. I feel angry with my mother.

__ 18. I don't get much attention from my mother.

__ 19. My mother helps me to talk about my difficulties.

__20. My mother understands me.

__21. When I am angry about something, my mother tries to understand me.

__22. I trust my mother.

__23. My mother doesn't understand what I am going through these days.

__24. I can count on my mother when I need to get something off my chest.

__25. If my mother knows something is bothering me, she asks me about it.

Appendix E
Inventory of Parent and Peer Attachment - Father Form

IPPA

This questionnaire asks about your relationships with important people in your life; your mother and your father. Please read the directions to each part carefully.

Some of the following questions are about your feelings about your ***FATHER*** or the person who has acted as your father. If you have more than one person acting as your father (e.g., a natural father and a step-father) answer the questions for the one you feel has most influenced you.

Please read each statement and write **ONE** number that tells how true the statement is for you now.

1 = almost never or never true
2 = not very often true
3 = sometimes true
4 = often true
5 = almost always or always true

__1. My father respects my feelings.

__2. I feel my father does a good job as my father.

__3. I wish I had a different father.

__4. My father accepts me as I am.

__5. I like to get my father's point of view on things I'm concerned about.

__6. I feel it's no use letting my feelings show around my father.

__7. My father can tell when I'm upset about something.

__8. Talking over my problems with my father makes me feel ashamed or foolish.

__9. My father expects too much from me.

__10. I get upset easily around my father.

__11. I get upset a lot more than my father knows about.

__12. When we discuss things, my father cares about my point of view.

__13. My father trusts my judgment.

__ 14. My father has his own problems, so I don't bother him with mine.

__ 15. My father helps me to understand myself better.

__ 16. I tell my father about my problems and troubles.

__ 17. I feel angry with my father.

__ 18. I don't get much attention from my father.

__ 19. My father helps me to talk about my difficulties.

__ 20. My father understands me.

__21. When I am angry about something, my father tries to understand me.

__22. I trust my father.

__23. My father doesn't understand what I am going through these days.

__ 24. I can count on my father when I need to get something off my chest.

__25. If my father knows something is bothering me, he asks me about it.

Appendix F
Inventory of Parent and Peer Attachment - Peer Form

IPPA

Some of the following questions are about your relationships with your close friends. Please read each statement and circle the **ONE** that tells how true the statement is for you.

1 = almost never or never true
2 = not very often true
3 = sometimes true
4 = often true
5 = almost always or always true

__ 1. I like to get my friend's point of view on things that I am concerned about.
__ 2. My friends can tell when I am upset about something.
__ 3. When we discuss things, my friends care about my point of view.
__ 4. Talking over my problems with my friends makes me feel ashamed or foolish.
__ 5. I wish I had different friends.
__ 6. My friends understand me.
__ 7. My friends encourage me to talk about my difficulties.
__ 8. My friends accept me as I am.
__ 9. I feel the need to be in touch with my friends more often.
__ 10. My friends don't understand what I am going through these days.
__ 11. I feel alone or apart when I am with my friends.
__ 12. My friends listen to what I have to say.
__ 13. I feel my friends are good friends.
__ 14. My friends are fairly easy to talk to.
__ 15. When I am angry about something, my friends try to be understanding.
__ 16. My friends help me to understand myself better.
__ 17. My friends care about how I am.
__ 18. I feel angry with my friends.
__ 19. I can count on my friends when I need to get something off my chest.
__ 20. I trust my friends.

__ 21. My friends respect my feelings.

__ 22. I get upset a lot more than my friends know about.

__ 23. It seems as if my friends are irritated with me for no reason.

__ 24. I can tell my friends about my problems and troubles.

__25. If my friends know something is bothering me, they ask me about it.

Table 1.

Number of participants who completed each measure.

Measure	Number of Participants
Youth Level of Service Inventory	19
Behavioural and Emotional Ratings Scale	12
Inventory of Parent Attachment - Mother	19
Inventory of Parent Attachment - Father	14
Inventory of Peer Attachment	19
Strengths and Difficulties Questionnaire	19
Child Behaviour Checklist - Youth Form	19
Incident Reports	19

Table 2.

Correlations between the Youth Level of Service Inventory and the Strengths and Difficulties Questionnaire, Incident Reports, and Delinquency and Aggression Scores on the Child Behaviour Check List.

	Risk Factor								
Behaviours	History	Family	Education	Peer	Drugs	Personality	Attitudes	Recreation	Total
Emotional difficulties	-.21	.16	.06	.18	.32	.15	.05	.03	.17
Conduct problems	-.06	.23	.43	.25	.31	.34	.25	.31	.52*
Hyperactivity	-.06	-.08	.05	.08	.11	.04	.08	.26	.03
Peer Difficulties	.09	.41	.40	-.03	.08	.61**	.47*	.17	.57*
Total Difficulties	-.12	.33	.39	.22	.31	.48*	.30	.30	.55*
Total incident Reports	.05	.33	.35	.00	-.12	.51*	.52*	.14	.50*
Delinquency measure	-.18	-.23	.04	-.05	.44	.01	.17	.33	.05
Aggression Measure	-.03	.24	.31	.18	.12	.43	.38	.07	.47*

**correlation is significant at .01 level (2 tailed)
*correlation is significant at .05 level (2 tailed)

Table 3.

Correlations between the Behavioural and Emotional Rating Scale and Prosocial Attitudes Scale of the Strengths and Difficulties Questionnaire and the Strengths and Difficulties Questionnaire, Incident Reports, and Delinquency and Aggression Scores on the Child Behaviour Check List.

	Strengths Areas						
Behaviours	Interpersonal	Family	Intrapersonal	School	Affective	Total BERS	Attitudes
Emotional Problems	-.19	-.44	-.30	-.13	-.32	-.12	
Hyperactivity	-.22	-.27	-.32	-.17	-.06	.16	
Conduct Problems	-.40	.26	-.34	.35	-.32	-.16	
Peer Difficulties	-34	.00	.02	-.68*	-.39	-.14	
Total Difficulties	-.28	-.24	-.19	-.41	-.36	-.12	
Incident Reports	-.21	-.20	-.24	-.41	-.40	-.06	
Delinquency	.07	-.05	.02	-.14	-.02	.01	
Aggression	-.32	-.42	.24	-.21	-.32	-.26	

*p<.01

Table 4.

Relationship between maternal attachment and self-reported strengths difficulties, incident, and delinquency and aggression as measured by the Child Behaviour Checklist.

	Maternal relationship			
Behaviours	Trust	Communication	Alienation	Total
Emotional problems	-.56*	-.26	-.75**	-.59**
Hyperactivity	.01	-.12	-.22	-.112
Conduct problems	.25	-.08	-.05	.07
Peer difficulties	-.14	-.08	-.12	-.13
Total difficulties	-.28	-.25	-.58**	*-.41*
Incident reports	.00	.21	-.19	.01
Delinquency	-.50*	-.69**	-.49*	-.64**
Aggression	-.36	-.07	*-.43*	-.33

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

Table 5.

Relationship between paternal attachment and self-reported strengths difficulties, incident, and delinquency and aggression as measured by the Child Behaviour Checklist.

	Paternal relationship			
Behaviours	Trust	Communication	Alienation	Total
Emotional problems	-.24	-.23	.76**	-.43
Hyperactivity	-.25	-.42	-.11	-.28
Conduct problems	.05	.06	.03	.03
Peer difficulties	.34	.43	-.06	.30
Total difficulties	-.08	-.10	-.48	-.24
Incident reports	.33	.31	.28	..32
Delinquency	-.16	-.26	.47	.34
Aggression	.16	.34	-.13	.13

**p<.01

Table 6.

Relationship between peer attachment and self-reported strengths difficulties, incident, and delinquency and aggression as measured by the Child Behaviour Checklist.

	Peer relationship variables			
Behaviours	Trust	Communication	Alienation	Total
Emotional problems	.18	.33	-.62**	.01
Hyperactivity	.25	-.01	-.14	.05
Conduct problems	-.15	-.32	.02	-.25
Peer difficulties	.00	-.24	-.18	-.22
Total difficulties	.16	-.02	-.48*	-.14
Incident reports	-.13	-.48*	-.07	-.38
Delinquency	.17	.23	-.31	.08
Aggression	.29	-.02	-.32	-.01

**p<.01

*p<.05