**Family Risk Factors and Conduct Disorder among Committed Male and Female Juveniles in Barbados**

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Abstract

The differences between juveniles with and without a Conduct Disorder (CD) diagnosis on family risk factors was investigated in a sample of 71 male and female youth, aged 11-16, from a juvenile facility in Barbados. Psychological reports and case notes were coded for presence and absence of a diagnosis of CD and family risk factors. Gender differences were also investigated among those with a CD diagnosis. Results of the Mann-Whitney and Pearson Chi-square analyses revealed that significantly more juveniles with CD compared to those without CD were from low income homes and families characterized by parental conflict and psychopathology. Implications for treatment and rehabilitation are discussed.

Key words: Conduct Disorder; Barbados; Family risk factors; committed youth

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Caribbean reports suggest that high crime rates, including juvenile crime rates, are undermining social growth and threatening human welfare in the region (Rodriguez, 2007; Charles, 2007). Incarceration or custodial punishment of youth inadvertently leads to disruption in family, community ties and education (Singh, 1997) which further leads to increased probability of re-offending. The economic cost of juvenile crime is also high. In 1996 in Barbados, it cost BD$77.42 per day to maintain a juvenile at the Government Industrial School (GIS) (Singh, 1997).

Traditionally in the Caribbean, law enforcement agencies and courts were expected to manage juvenile crime and the problems of at-risk youth. According to a past Regional Director of the Caribbean Youth Programme, Mr. Henry Charles (2007), the regional justice and penal systems were not having the desired impact. Today, young offenders’ cases are still managed through mainly punitive responses in the region (Charles, 2007). Due to the increase in juvenile crime, more countries also lean towards harsher punishment as a deterrent (Charles, 2007). Yet, research clearly indicates that large-scale imprisonment hinders development and uses resources inappropriately (Song & Lieb, 1993; Mash & Wolfe, 2007; Office of the Surgeon General, 2001).

There is a growing sentiment in the Caribbean that alternative methods/services to incarceration are not luxuries, but investments in the security and stability of our region. The current study examines family risk factors related to conduct problems in a sample of committed youth in Barbados. Such a study may increase the focus on alternative methods, prevention and intervention, through scientific analysis of the nature and extent of problem behaviours within this group. More Caribbean helping professionals are becoming aware of the impact of these factors on the prevalence of conduct problems. It should also be useful in determining and implementing cost-effective and rehabilitative remedies.

Risk factors are defined as anything that increases the probability that a person will suffer harm (Office of the Surgeon General, 2001) from internal and external factors such as pathology, family conflict and living in high crime neighborhoods. Kazdin, Kraemer, Kressler, Kupfer, and Offord (1997) identify risk factors by their ability to predict later offending. There is constant interplay between the individual and her/his environment, such as family, school, community and peers (external risks) (Farmer, Quinn, Hussey, & Holahan, 2001). Risk factors for conduct problems are not static and their effect changes depending on when they occur in a youth’s development, context and circumstances (Essau, 2003; Mash & Wolfe, 2007; Nelson, Duppong-Hurley, Synhorst, & Epstein 2007). Risk factors may also be multi-faceted and inter-related. Studies of multiple risk factors have found that the more risk factors an individual is exposed to, the greater the likelihood that he or she will become violent (Office of the Surgeon General, 2001). For example, one study found that a 10 year old who is exposed to 6 or more risk factors is 10 times as likely to be violent by age 18 as one who is exposed to only one factor (Herrenkohl et al., cited in Office of the Surgeon General, 2001).

CD describes children who display a persistent pattern of severe aggressive and antisocial behaviour which includes hurting other people and animals, stealing, or committing acts of vandalism (Mash & Wolfe, 2007). Fifteen diagnostic criteria of CD are grouped under four subheadings: (1) aggression to people and animals; (2) destruction of property; (3) deceitfulness or theft and; (4) serious violations of rules (American Psychiatric Association, 2000). The diagnosis of CD requires the presence of three or more of the fifteen criteria in the past 12 months, with at least one criterion present in the past 6 months (American Psychiatric Association, 2000). CD is one of the most common child and adolescent disorders and is difficult to treat because it manifests diverse maladaptive behaviours that have multifactorial etiologies (Mash & Wolfe, 2007).

Researchers from many disciplines have examined the relationship between family risk factors and the presence of conduct problems (Blum, Halcon, Beuhring, Pate, Campbell-Forrester & Venema, 2003). Research has focused on factors like antisocial family values, parental antisocial or criminal behaviour, maternal depression, marital discord, single parenthood, poor monitoring, inconsistent and/or harsh discipline, poor communication, and low socio-economic status (SES) of family (Lahey, Moffitt, & Caspi, 2003; Mash & Wolfe, 2007).

In a study done in Jamaica, Lyttle and Brodie (2006) examined whether children and adolescents with a history of abuse are likely to meet the diagnostic criteria for CD. Participants were assessed using the CD Scale and a demographics questionnaire (Lyttle & Brodie, 2006). Of the 70 substantiated cases of child abuse in 10 to 19 year olds, 50% of the participants met CD criteria (Lyttle & Brodie, 2006). Further, physical and sexual abuses were major risk factors in the development of their CD (Lyttle & Brodie, 2006). Lyttle and Brodie’s results about physical abuse are supported in international literature. For instance, Moffitt (1993) and Essau (2003) suggest that harsh punishment may lead to increased externalizing behaviour especially when relationships within the family are cold.

In contrast, Lytton (2002) proposed that the best indication of later delinquency may be the child’s earlier antisocial tendencies. Further, in a somewhat cyclical pattern (Patterson, cited in Lytton, 2002), antisocial attitudes displayed by children provoke harsh parental responses, including physical punishment, which result in increased antisocial attitudes and behaviour (Lytton, 2002). In Caribbean territories like Jamaica, Barbados, and Dominica, parents frequently met out harsh discipline to their children (Cunningham & Correia, 2003, p.17). Harsher punishment is used more frequently with boys to make them tough, but is also subsequently more ineffective with them. Lytton (2002) argued that physical punishment is useless where a corrective effect is most needed.

Historically, more males were likely to have conduct problems than females (Essau, 2003). For chronic conduct problems (early childhood to adulthood), the male-to-female ratio is marked, about 10:1. In contrast, more transient forms of problem behaviour in adolescence show male-to-female ratio of about 2:1 (Moffitt, Caspi, Rutter & Silva, 2001). In contrast to boys whose early symptoms of CD are aggression and theft, early symptoms for girls are usually sexual misbehaviour (Mash & Wolfe, 2007). Girls with conduct problems are more likely than others to develop relationships with boys who have conduct problems, then become pregnant at an earlier age, and display a wide spectrum of later problems including anxiety, depression, and poor parenting (Moffitt et al., 2001). Boys remain more violence-prone than girls throughout their lifespan, and are more likely to engage in repeated acts of violence (Broidy, Nagin, Tremblay, Bates, Brame, Dodge et al., 2003). In addition, physical aggression by girls during childhood, when it does occur, does not seem to forecast continued physical violence and other forms of delinquency in adolescence as it does for boys (Broidy et al., 2003). Interestingly, clinically referred girls are more deviant than boys in relation to their same-age, same-sex peers (Webster-Stratton, 1996).

More recent research indicates a decrease in the gender difference in conduct problems by more than 50% over the past 50 years (Rutter, Giller, & Hagell, 1998). Moffitt et al. (2001) demonstrated increases in gender difference in conduct problems through middle childhood, which then narrows greatly in adolescence, due mainly to a rise in covert nonaggressive antisocial behaviour in girls, and then increases again in late adolescence and beyond. Some attribute the recent decrease in gender gap to a greater susceptibility of females to contemporary risk factors, such as family discord (Rutter et al., 1998).

Among family stressors, poverty is one of the strongest predictors of CD and high crime rates (Mash & Wolfe, 2007). Researchers suggest that SES may be the single most common denominator for behavioural deviation risk (Scott & Nelson, 1999). Alternatively, others suggest that SES gives rise to factors that lead to conduct problems rather than causes CD directly (Essau, 2003). Cyclically, SES may serve as a risk factor for both parental dysfunction and child conduct problems, or, is a consequence of parental dysfunction and a correlate of conduct problems (Essau, 2003).

In 1999, Crawford-Brown examined the association between parenting factors and conduct disorder in Jamaican male adolescents. One hundred and twenty-four male adolescents, 11-18 years old, were studied in order to assess whether, and the extent to which severity and presence of CD may be a function of family, peer, or biological factors (Crawford-Brown, 1999). Results showed a significant relationship between some functional and structural family factors, and CD including: presence of negative parental role models, absence of mother, low contact with mother and changes in the youth’s living arrangements. Crawford-Brown (1999) concluded that having absent or low-contact mothers were key factors contributing to CD.

Inadequate parental supervision, particularly at middle and high school increases the likelihood of significant involvement in a deviant peer group (Mash & Barkley, 1998). Monitoring becomes increasingly important as children move into adolescence and spend less time under the supervision of their parents or other adults and more time with their peers (Moffitt, 1993). Zeman and Bressan (2008) explored youth delinquency using data from the 2006 International Youth Survey in Toronto. They found that youth who reported a positive relationship with their father and/or mother were less likely to report violent delinquency.

Persistent, serious conflict between primary caregivers or between caregivers and children enhance risk for children. Whether the family is headed by two biological parents, a single parent, or some other primary caregiver, children raised in families high in conflict appear to be at risk for all of the problem behaviours. Forgatch (1989) suggested that for some single parents, the events surrounding separation and divorce set off a period of increased parental depression and irritability which leads to loss of support and friendship, setting in place the risk of more irritability, ineffective discipline, and poor problem solving outcomes. The ineffective problem solving can result in more depression, while the increase in irritable behaviour may simultaneously lead the child to become prone to conduct problems. The effect of marital conflict on youth antisocial behaviour may be affected by many factors including: demographic factors, parents’ unavailability, the use of inconsistent or harsh discipline, poor monitoring, and how the child interprets conflict between parents (Cummings & Davies, cited in Mash & Wolfe, 2007).

In addition to parental conflict, family history of problem behaviour is also a risk factor. If children are born or raised in a family with a history of criminal activity, the risk of juvenile delinquency increases. Boys who had a parent arrested before their 10th birthday were 2.2 times more likely to commit violent crimes than those with noncriminal parents (Hawkins, Herrenkohl, Farrington, Brewer, Catalano, Harachi & Cothern, 2000).

The current study investigates several family risk factors, in relation to the presence or absence of a diagnosis of CD in juveniles committed at the GIS in Barbados: negative parent/child relationship, single parent home, parental absence due to migration, absence of positive discipline in the home, absence of mentoring in immediate or extended environment, family pathology, parental conflict in the home, and low income. The unique population of committed male and female juveniles adds to the current body of Caribbean empirical studies. General individual characteristics of committed juveniles include: intelligence, impulsiveness or the inability to delay gratification, aggression, and restlessness (Farrington, 2002). For the specific population being examined, characteristics included: history of physical and sexual abuse, history of impulsiveness and aggression, history of mental disease, comorbid diagnoses such as Attention-Deficit/Hyperactivity Disorder, Mental Retardation, Reading Disorder, Mathematics Disorder, Learning Disability, Chronic Adjustment Disorder and Oppositional Defiant Disorder. Further, these juveniles were very vulnerable, coming from homes rife with parental and sibling conflict, absent fathers, drug abuse, violence, and parental mental disorder.

Research questions

The present study examined the following hypotheses for the current sample: (a) there will be a difference in CD diagnosis between male and female juveniles at the GIS; (b) family risk factors will be strongly correlated with the presence of CD among the committed juveniles, and; (c) more family risk factors will be identified among those juveniles with CD compared to those without CD.

Method

Participants

This was a retrospective study of 71 juveniles with and without a diagnosis of CD, who were committed at the GIS (the only juvenile facility in Barbados), which is a secure unit for young people committed by the courts and through the probation system, who require safe custody. The unit has two holdings, one for males and another for females. At the time of data collection (2008), there were 76 juveniles (50 boys, 26 girls, 11-16 years old) at the GIS. Those with a diagnosis of CD were committed for reasons such as: threatening others with bodily harm; theft; wandering; unlawful assault; breaking and entering; malicious wounding; breach of probation; possession of cannabis; and possession of an offensive weapon. Those without CD were committed for reasons such as: wandering; theft; breach of probation; unlawful assault and; possession of cannabis. Only juveniles whose files contained formal psychological reports were included in the study (n = 71).

Procedure

A single researcher collected the data from formal psychological reports, including attached case notes and social enquiry reports, over a four-day period. There were 5 files without sufficient psychological information to warrant inclusion in the study. The study included all case notes from January 2006 to September 2008 in which there was a case note diagnosis of CD (DSM-IV-TR codes of 312.81, 312.82, and 312.89). No attempt was made to review the diagnosis on the basis of the information in the notes. Data relating to family history, history of violent behaviour (defined as violent behaviour in home, school or neighbourhood followed by formal caution by the police) and a range of developmental and psychopathological factors were extracted onto a proforma.

Family risk factors were recorded in a SPSS data file as ‘present’ or ‘absent’ if documented in the case notes. A factor was recorded as present based on strict adherence to the operational definitions of the variables constructed by the author (see section below). Cases (male and female juveniles) were divided into a ‘CD’ and a ‘No CD’ group, and these two groups were then compared for family risk factors. A second researcher examined the files and an inter-rater reliability analysis was performed for the following variables: negative parent/child relationship, parental absence due to migration, absence of positive discipline in the home, absence of mentoring in and immediate or extended environment. The inter-rater reliability was 95% for all variables.

Operational definitions - independent variables:

Negative parent/child relationship: this refers specifically to poor verbal communication (harsh, abusive language; speaking on a need-to basis or when something bad happens) and; poor and inappropriate non-verbal communication (abuse, and neglect).

Single parent home: this is characterized by a home in which there is one biological or non-biological parent.

Parental absence due to migration: this refers to single parent homes as well as extended family homes, where a parent is absent due to permanent migration overseas or to another part of the country.

Absence of positive discipline in the home: this refers to homes in which parents exclusively use beatings and harsh verbal communication (cursing, shouting, insulting) rather than alternative measures such as use of tokens and removal of privileges.

Absence of mentoring in immediate or extended environment: this refers to lack of moral guidance (to the young person) by anyone in the home or in the neighbourhood (church, youth groups, positive peers).

Family pathology: this refers to any report of mental disease such as depression, sociopathy (associated with or without a prison sentence) or alcoholism within the family.

Parental conflict in the home: this refers to homes in which parents are abusing each other (verbally, sexually, emotionally, and physically).

Low income: this was measured by reports of poverty, unemployment, minimal support from partner, and welfare benefits.

Operational definition - dependent variable:

Presence or absence of CD: this was measured by the presence or absence of a CD diagnosis in the subjects’ psychological reports.

Data analysis

Juveniles were divided into dichotomous groups: those with a diagnosis of CD and those without a CD diagnosis. The non-parametric Mann-Whitney U Test was used to compare groups since they were not paired and the assumptions of a normal distribution could not be satisfied. Each case received a score on each risk factor based on the number of risk factors identified in the reports. Scores ranged from 0 to 8. The Mann-Whitney U test was appropriate to compare the mean ranks. Pearson Chi-squares were appropriate in this case as they are used to determine whether distributions of categorical variables differ from one another. The tests were carried out at the 5 % level of significance.

Results

H1: There will be a significant difference in CD diagnosis between males and females committed at the GIS.

CD diagnoses were more frequent for males in this sample. Specifically 14 of 45 males had a diagnosis of CD, compared to 4 of 26 females. There was no statistically significant difference between the two genders with CD diagnosis, χ² (1, n =71) = 2.154, p = .142.

H2: Family risk factors will be strongly correlated with the presence of CD among the committed juveniles.

Chi-square analyses show significant differences for three risk factors across the groups (Table 1): history of family pathology (χ² (1, n =71) = 5.862, p = .015) where 9.4 per cent (5 of 53) of those without CD as opposed to 33.3 per cent (6 of 18) of those with CD had such a history between parents in the home; conflict between parents in the home (χ² (1, n =71) = 5.565, p = .018), where 17 per cent (9 of 53) of those without CD as opposed to 44.4 per cent (8 of 18) of those with CD experienced such conflict; and low income homes (χ² (1, n =71) = 12.125, p = .000), where 41.5 per cent (22 of 53) of those without CD as opposed to 88.9 per cent (16 of 18) of those with CD came from low income homes.

H3: More family risk factors will be identified among those juveniles with CD compared to those without CD.

Each juvenile was given a score ranging from 0 to 8 based on the number of risk factor variables identified within their records. The mean ranks for those with CD and those without CD were examined. Groups of juveniles with CD had the highest number of family risk factor variables (47.97 compared to 31.93 for the group of juveniles without CD). There was a significant difference between the groups on number of factors identified (U = 261.5, P = .004).

Discussion

Juveniles with CD were significantly different from those without CD on three of eight family risk factors in the current study. These include history of family pathology. Factors such as parents being in prison, severe alcoholism, and maternal depression were aspects of family pathology indicated in the juveniles’ psychological reports. These findings corroborate previous research (Patterson, cited in Mash & Wolfe, 2007; Nelson et al., 2007), that CD is related to ineffective parenting that stems from parents’ criminal activities, substance abuse and depression, or from learning behaviours from parents. In addition, Barbados has a close-knit family culture. The idea that it takes a village to raise a child is very present in Barbados. Adult family members (parents, grandparents, aunts, uncles, older cousins) are very involved in rearing and disciplining children. This may influence how juveniles perceive and react to pathology within their families.

Parental conflict was also significantly different for juveniles with a CD diagnosis. Previous research did find that families of children with conduct problems are often characterized by an unstable family structure with frequent transitions (Mash & Wolfe, 2007; Forgatch, 1989). Juveniles in this current population may engage in conduct problems as a means of expressing and/or escaping their frustration with their home situation.

Low income was the third family risk factor differentiating those with and without a CD diagnosis in the current study; a finding also supported by previous research (Pagani, Boulerice, Vitaro, & Tremblay, 1999). Disadvantaged youth are often forced to find work and the options usually involve the drug trade and prostitution (Cunningham & Correia, 2003; Harriott, 2002). Some juveniles in the current sample were committed for such offenses.

No statistically significant difference in CD diagnosis was found between males and females in the current study. This is somewhat contrary to what has been overwhelmingly reported in the literature about CD and gender. Perhaps these results can be attributed to the small number of female juveniles with CD (n = 4) within the sample population (n = 71), which significantly affected statistical analyses.

There was a significant difference in the number of multiple family risk factors among those with CD compared to those without CD. These results are not unlike previous literature. For example, the more risk factors one is exposed to, the greater the likelihood that he or she will become violent (Office of the Surgeon General, 2001).

Conclusion

Juveniles diagnosed with CD at the GIS in Barbados presented with myriad problems that may far exceed the resources available to deal with them. The findings indicated that the majority of juveniles with CD come from low income homes that were riddled with parental conflict and affected by family pathology. All of these factors seem to have contributed to the juveniles’ inability to delay gratification and conform to societal norms. Treatment interventions should therefore take these factors into consideration to effectively reduce the prevalence and effects of CD and its associated problems, within the family or institutions where children live.

In Barbados in general, there are preventive programmes to aid in healthy development for children which focus on family. For instance, through mandatory family life education in the school system, Barbadian youth learn things like tolerance and control. Additional methods that the Juvenile Justice System uses to deal with problematic behaviour include a focus on reform rather than punishment. Consequently, many individuals are given chances to improve their behaviour, before being committed. A sentence at the GIS is the last option in this system. The GIS provides several rehabilitative services such as employment/skill training, family intervention, and counseling. Despite these efforts however, CD still remains an issue requiring further investigation.

Future research

A larger sample is required to test the gender hypothesis advanced in the current study. Future researchers should consider a longitudinal study of the relationship between family risk factors and the prevalence of general conduct problems (not only CD) among the committed juveniles in Barbados. Recidivists may be investigated to measure whether the family risk factors are significantly influential. There should also be a focus on the existing treatment programmes available for conduct problems in this population. Such research should generate data necessary to aid Juvenile Justice Officers and members of the helping professions to develop the appropriate, population-specific prevention, intervention and responsive methods needed.

Table 1 P values for all the Independent Variables

**Variables Value of Pearson’s**

**Chi-square df P values**

**(2-sided)**

|  |  |
| --- | --- |
| Gender  Negative parent/child relationship  Single parent home  Absent parent due to migration  Absence of positive discipline in the home  Absence of mentor in immediate environment  History of family pathology  Parental conflict in the home  Low income | 2.154 1 .142  .372 1 .542  1.167 1 .280  .001 1 .975  .835 1 .361  1.254 1 .263  5.862 1 .015  5.565 1 .018  12.125 1 .000 |

**Ouestion:**

**Read the article below which is available from the Unit 2 reading folder and answer the following questions**

**Matthews, J. (2011). Family risk factors and conduct disorder among committed male and female juveniles in Barbados. Caribbean Journal of Psychology, 4(1), 5-16.**

**1 What research methods were used in this study? (1 mark, 100 words)**

**2 Using the Unit 2 notes discuss the ethical issues that underlie this study. (2 marks, 200 words)**

**3 What alternative research method would you use to undertake a similar study like the one conducted by Matthews in your country of residence? Justify your response (2 marks, 200 words)**