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Clinic Referred Conduct Problem Children: A Description of Child and Family Characteristics

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Abstract

The child and family characteristics of conduct problem children have been described in various epidemiological studies and university based clinic sample studies. However, the extent to which this information applies to the conduct problem referrals received at a community based children's mental health centre is not clear, particularly with respect to the nature and severity of presenting problems. This study examined the severity, pervasiveness and co-morbidity of conduct problems with other behaviour problems in 106 conduct problem children, referred to a community-based children's mental health centre. A majority of the children exhibited clinically significant behaviour problems with mothers reporting more behaviour problems than fathers or teachers. Many children were found to have situational conduct problems, largely based in the home setting, with a minority of children exhibiting pervasive conduct problems. The heterogeneous nature of problems presented by this sample of children, ranging from moderate to severe suggests that a spectrum of interventions must be available. Possible interventions include short-term educational programs and long term intensive therapy. Methodological weaknesses are discussed.

In Ontario, roughly six percent of boys between the ages of four and eleven exhibit serious acting out behaviour problems (Ontario Child Health Study, 1986). Moreover, these children constitute a large proportion of the referrals received by children's mental health centres. There is considerable research examining the characteristics of children with very serious acting out behaviour problems based on epidemiological work (e.g., McGee, Williams, & Silva, 1984; Ontario Child Health Study, 1986) and within university based research clinics (e.g., Webster-Stratton, 1988; Webster-Stratton & Hammond, 1988). However, less information is available on the nature, heterogeneity, and severity of the behaviour problems exhibited by children referred to a community based children's mental health centre. In recent years, there has been an increasing awareness of the importance to "transport" proven treatment programs into natural settings (Hoagwood, Hibbs, Brent, & Jensen, 1995). A first and important step in this process is to better understand the clinical characteristics of the children and families referred to a community based clinic. Such information can be used to better understand the type and range of treatment services needed to provide adequate and effective intervention within a natural setting. This study will begin this process by examining the clinical characteristics of young conduct problem children referred to a children's mental health centre.

Definition of Conduct Problems in Children.

The current Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) (American Psychiatric Association, 1994) describes two diagnostic categories for conduct

problems in children: Oppositional Defiant Disorder (ODD) and Conduct Disorder (CD). These two disorders have commonly been regarded as lying on a continuum with CD representing a more extreme form of ODD (Schachar &Wachsmuth,1990). Oppositional Defiant Disorder is characterized by a recurrent pattern of negativistic, defiant, disobedient and hostile behavior toward authority figures and includes behaviours such as loss of temper, arguing, defiance and noncompliance to requests or rules (American Psychiatric Association, 1994). The DSM-IV criteria for CD includes a repetitive and persistent pattern of behaviour in which the basic rights of others or major age-appropriate societal norms or rules are violated. These behaviours include physical harm to animals or people, damage to property, deceitfulness, theft, and violation of rules at home and school. Other features of CD include a lack of empathy for the well-being or feelings of others, and an apparent lack of remorse for actions. Children with this disorder may also show poor frustration tolerance, irritability, recklessness, and become involved in the use of illegal substances. The behaviour pattern often leads to impairment in social and academic functioning and is present across a variety of settings such as the home, school, and the community.

Across studies, the term for conduct problems is inconsistent. This constellation of childhood acting out behaviour problems is frequently referred to by many different labels including conduct disorder, oppositional defiant disorder, disruptive behaviour disorder, externalizing behaviour disorder and anti-social or aggressive children. In some cases, children

with the same behavioural presentation are given different labels, while, in other cases, children are given the same label despite a slightly different behavioural presentation. In addition, the various studies have used different assessment measures and cut-off points to define conduct behaviour problems. For the purpose of this study and for clarity in reading, the term "conduct problem" will be used to encompass the behavioural difficulties found in children with acting out behaviour problems even though the studies cited may have used an alternative label. When specific studies have used DSM categories to describe and identify the children studied, the label of CD and ODD wil be maintained and reported in the body of this paper.

Onset of Conduct Problems in Children

Patterson, Capaldi and Bank (1991) use the label "early starter pathway" to describe the onset of conduct problems before the age of 10. These children progress from less serious forms of conduct problems such as noncompliance and temper tantrums to more serious forms such as aggression, stealing, and substance abuse. Children in the "early starter pathway" have been found to demonstrate the greatest stability of conduct problems and to have the most negative long-term prognosis (Patterson et al., 1991). For example, Reid and Patterson (1991) report that roughly one-half of noncompliant and difficult to manage preschoolers continue to have problems at age six. Furthermore, Olweus (1979) found that developmentally early aggressive behaviour matched intelligence in stability. The stability of intelligence over ten years ($r=.70$) was only slightly higher than that of aggression ($r=.60$). Children in the "early starter pathway"

have been found to have academic difficulties, particularly in the area of reading and motor skill deficits (Hinshaw, 1992). As adults, "early starter pathway" children are at much greater risk for Antisocial Personality Disorder and other psychiatric diagnoses, lower educational attainment, unstable work history, and poor physical health.

A "late starter pathway" for conduct problems begins in adolescence and results in less impairment (Patterson et. al., 1991). "Late starter" children show little evidence of reading deficits, pre-existing family adversity, prenatal problems, or motor skill difficulties when compared to "early starter" children. In contrast to children in the "early starter" pathway, these children generally have adequate social skills and their conduct problems are less likely to continue into adulthood (Patterson et. al., 1991). Epidemiological studies (e.g., Mc Gee et. al., 1984) have found that children with a stable pattern of conduct problems have greater problems with attention span, reading, restlessness, overactivity, and impulsivity when compared to other children.

Certain personality characteristics such as resistance to discipline and irritability have also been associated with conduct problems and can appear early in the child's developmental history, sometimes as early as the age of two (Bates & Bayles, 1988). Furthermore, infant temperament and neuropsychological variation have been linked to the development and display of conduct problems. A difficult temperament may predispose a child to an insecure attachment to parents as well as a coercive style of parent-child interaction (Patterson, Reid, & Dishion,

1992).

Prevalence of Conduct Problems in Children.

Epidemiological studies provide important information on the prevalence of psychopathology in the general population and for the treatment needs of those identified. The Ontario Child Health Study (Offord, Alder, & Boyle, 1986) examined the prevalence of emotional and behavioural problems in a representative community sample of 1869 children between the ages of 4 and 16 years across the province of Ontario. DSM-III criteria (APA, 1980) were applied to behavioural ratings completed by parents, teachers, and youth self-reports (ages 12 to 16) in order to arrive at a diagnosis of CD. In the 4 to 11 year age group, the diagnosis of CD was based on parent and/or teacher reports. The overall prevalence rate for this age group was 6.5% for boys (n=46) and 1.8% for girls (n=16).

A community study by Kashani, Orvaschel, Rosenberg and Reid (1989) of children aged 8, 12, and 17 years examined the way in which psychopathology occurs across different age groups. The sample consisted of 210 children, with 70 children in each of the age groups. A semi-structured psychiatric interview with the child was carried out in the home. Based on children's reports, 5.7% of the children in the 8 year old age group, 7.2% in the 12 year age group and 21.4% in the 17 year age group were diagnosed as CD. Based on parent reports none of the children in the 8 year old age group, 2.9% in the 12 year age group and 7.2% in the 17 year age group were diagnosed as CD. Prevalence estimates for ODD based on childrens reports

were 5.7%, 8.6%, and 5.7%, in the 8, 12, and 17 year old age group, respectively. Estimates of ODD using parent reports were 11.4%, 5.7%, and 11.4%, in the 8, 12, and 17 year old age group, respectively. Conduct problems were more frequent in males. According to Kashani et. al., (1989), some of the children who met DSM-III criteria were not necessarily impaired or in need of treatment and that this may have influenced the high prevalence estimates obtained. If the criterion of clinical significance (i.e., impairment in social or other area of functoning) were applied, the estimates may have been reduced.

Based on a longitudinal study on the health, development and behaviour of children in New Zealand, McGee, Silva and Williams (1984) found that 22.6% of the boys and 14.2% of the girls were identified as having conduct problems. The ratio of boys to girls was 1.6:1. The prevalence rates found by McGee et. al., (1984) are much higher when compared to the prevalence rates obtained in the Ontario Child Health Study (1986). This may be accounted for in large part by the clinical cut-off points used in each study as well as by the fact that the McGee et. al. (1984) study did not use DSM criteria to define clinical significance.

McGee et. al. (1984) argue that the severity of reported conduct problems is indicated by the stability (present at ages 5 and 7) of the reported problem and/or whether there is parent-teacher consensus that a problem exists. When the additional criteria of stability of conduct problems or parent-teacher concensus were applied, the prevalence estimates dropped. For example, when the additional criteria of stable conduct problems at ages 5 and 7 were used,

only 9% of all boys and 4.6% of all girls were found to be experiencing conduct problems. Moreover children identified with either pervasive or stable conduct problems were five times more likely to have sought professional services for behavioural or school learning problems. In addition, the Ontario Child Health Study found that most of the children were diagnosed based on situational criteria. Eighty percent of the children in the 4 to 11 year old CD group were identified by teachers alone. While McGee et al., (1984) also found conduct problems to be situational in nature, it was predominantly parents who identified children as exhibiting conduct problems.

In a recent review on the epidemiology of conduct problems in children, Bauermeister, Canino and Bird (1994) discuss some of the methodologic and conceptual issues which have hampered the interpretation of findings in epidemiologic surveys. They found that the interpretation of findings is made difficult due to differences in the sampling procedures used, age differences of the subjects, and the use of different assessment methods. Due to the low level of agreement between parent, teacher and child reports, prevalence estimates have also been found to vary. In epidemiologic surveys, researchers commonly use computer algorithms that combine parent, teacher or child reports to arrive at a single prevalence estimate. The studies surveyed by Bauermeister et. al.(1994) were found to vary in the method they employed to combine information provided by the various informants. Consequently, prevalence estimates obtained by each of the methods may also result in different prevalence rates. In the studies

reviewed here, this methodological issue was evident. The characteristics of the children identified as having conduct problems were based on the use of different questionnaires employing different cut-off scores. In addition, prevalence rates were found to vary depending on whether categorical DSM criteria were used to identify conduct problem children (Offord et al., 1986) versus the use of dimensional behaviour ratings (McGee et al., 1984). In other cases, DSM criteria were determined using behavioural rating scales (Offord et al., 1986) while others used psychiatric interviews (Kashani et al., 1989).

In an extensive analysis of 25 epidemiological studies on a wide range of childhood behavioural problems, Schwartz Gould, Wunsch-Hitzig and Dohrenwend (1981) conclude that there is very little difference in the estimates of childhood behavioural problems. This was despite different methods and sources of information. The rate of maladjustment was found to be greater in boys than in girls in 17 of 18 American studies and in 22 of 25 British studies. This sex difference was influenced by the type of disorder, with conduct disorder found more frequently in boys. The conclusion that there is little difference in the estimate of childhood behavioural problems is based on an average of the various studies reviewed by these authors, and this may therefore not be very accurate. For example, the prevalence estimate of 11.8% obtained for the U.S. is based on 25 studies which had prevalence estimates between 6.9% to 30%. The prevalence estimate of 13.2% for Britain is based on an average of 10 studies which had estimates between 6.3% and 37%. Thus, an average based on such a wide range of estimates can

be very misleading. In the review by Bauermeister et al. (1994), overall estimates for CD and antisocial conduct problems ranged from 0.9% in the Mannheim study to 8.7% in the Missouri adolescent sample.

Taken together, the studies reviewed here suggest that the prevalence estimates of conduct problems fall within the range of 6.5% to 22.6% in boys and 1.8% to 14.2% in girls, depending on the methodology employed. The only consistency was in the ratio of boys to girls, which was found to be roughly 2:1 in most of the studies. This was also found in the majority of the studies in the Bauermeister et al. (1994) and Scwartz- Gould et al. (1981) reviews.

Behavioural Rating of Conduct Problems in Children

Both epidemiological and clinic sample studies (e.g., Schaughency & Lahey, 1985) have found that parents and teachers differ in the number of children they identify as having conduct problems. Also important to understand is the consensus between parents in the rating of conduct problems in children. Examination of teacher-parent agreement is also important because the pervasiveness of behaviour problems in children is an indicator of problem severity and treatment needs. Similarly, the co-morbidity of conduct problems with other behaviour problems provides an indication of the breadth of difficulties experienced by a child and the type of intervention required. The following studies examine some of the available information regarding mother, father, and teacher behavioural reports, as well as the pervasiveness and co-morbidity of conduct problems in children.

Mother and Father Ratings of Conduct Problems in Children. Studies examining the maternal and paternal behavioural ratings of conduct problems have found somewhat contradictory results. Schaughency and Lahey (1985), using a sample of 61 consecutive referrals of children to a university based clinic for home and school problems, found a significant positive relationship between mother and father ratings of externalizing behaviour problems ($r = .75$). These researchers argued that the significant correlation was due to the mother's description of the child to the father as the mothers were found to spend much more time with their children than the fathers.

Webster-Stratton (1988) examined the relationship between parent adjustment and report of child behaviour problems in a sample of 120 families from her university based Parenting Clinic for conduct problem children. The children studied were between the ages of 3 and 8 and consisted of 82 boys and 38 girls. Mother and father ratings were significantly correlated on the Child Behavior Checklist (CBCL; Achenbach, 1991a) Externalizing, Internalizing and Depression scores but not on the CBCL Hperactivity scale or the Eyberg Child Behavior Inventory (ECBI; Eyberg & Ross, 1978). No differences were found between maternal and paternal severity ratings on the CBCL scales , but differences were found on the ECBI. Based on the ECBI, mothers perceived their children's behavioural problems as occuring more frequently and were more likely to perceive their behaviour as problematic. Webster-Stratton (1988) also found that the mothers' perception of their children's deviant behaviour was significantly

influenced by personal adjustment measures, particularly maternal depression. According to Webster-Stratton (1988), data from this study suggest that fathers may cope with stress and child problems differently than mothers. That is, mothers perceived their children as more difficult temperamentally, and regarded themselves as more incompetent as parents when compared to fathers. This suggests that "mothers may absorb more of the stress or guilt related to the child's misbehaviours and to their own parenting role regarding the child than do fathers" (Webster-Stratton, 1988, p.914).

This difference in perception between maternal and paternal ratings of child behaviour has been attributed to a number of factors. From these studies it can be seen that personal adjustment measures, particularly depression, have been found to influence not only parental perception of child behaviours, but also the parents' interaction with the child. It appears that mothers also assume greater responsibility and blame for their childrens' misbehaviour than fathers do. Moreover, Webster-Stratton (1988) found that agreement between mother and father ratings of the child depended on the measure used (i.e., CBCL versus ECBI). However, Webster-Stratton and Hammond (1988) found mothers to consistently rate children with more severe behaviour problems when compared to fathers. The inconsistent results noted in the above mentioned studies have been attributed to a number of factors such as amount of time spent with the child as well as differences in the way parents deal with stress.

Parent and Teacher Agreement. In an epidemiological sample, McGee et al. (1984) found

that parents identified twice as many children with conduct problems when compared to teachers. They suggest that parents may be less accepting of problem behaviours or that children may show more problems at home than at school. Only 5% of the entire sample was identified by both parent and teacher ratings as having conduct problems and boys were more likely to have behaviour problems on which there was parent-teacher agreement. In contrast to this study, the Ontario Child Health Study (1986) found that 80% of the children in the 4 to 11 year age group with CD were identified as such by the teacher alone. In this age group, only 3 of 46 CD boys were identified as such by both parent and teacher and none of the 16 CD girls were identified with pervasive CD problems. Based on their findings, Offord et al. (1986) and McGee et al. (1984) both concluded CD is situational in nature.

Studies based on clinic samples have also found differences between mother, father and teacher ratings of conduct problems in children. In the study mentioned earlier, Schaughency and Lahey (1985) found mother ratings of child behaviour to have a significant positive relationship (r=.47) with teacher ratings, whereas father ratings were not significantly correlated (r=.17). The authors suggest that this may be related to the fact that in their sample mothers spent more time with their children than fathers, or there may have been more communication between mothers and teachers. In contrast to Schaughency and Lahey's (1985) findings, Webster-Stratton (1988) found few significant correlations between mother and teacher reports but found many significant correlations between fathers and teachers (r=.47). Webster-Stratton (1988)

emphasized the importance of including father ratings in assessing children's behavior problems because of the strong relationship found with teacher reports and because fathers appear to be relatively less influenced by personal adjustment difficulties. Webster-Stratton (1992) found maternal single parent status and maternal depression to be positively correlated with teacher reports of increased child behavior problems.

In summary, studies based on clinic samples report different findings with respect to parent and teacher ratings. For example, they have found mother ratings to be correlated with teacher ratings (eg., Schaughency & Lahey, 1985) while other studies have found father ratings to be more strongly correlated with teacher reports (e.g., Webster-Stratton, 1988). Studies based on community samples have found similar inconsistencies. For example, while both Offord et al. (1986) and McGee et al. (1989) found conduct problems to be situational in nature, the former found conduct problems more often in schools while the latter found conduct problems more likely to be identified in the home. The range of different results obtained in these studies stress the importance of further research in this area.

The Co-morbidity of Conduct Problems with other Problems.

A factor likely to be important in understanding the identification of conduct problems in the home or school is the co-morbidity with other behavioural difficulties. Results of the Ontario Child Health study found that 60 % of the CD children also met the diagnostic criteria for Hyperactivity (Offord, et al., 1986). The co-occurrence of CD and Hyperactivity was also

reported by Reeves,Werry, Elkind and Zametkin (1987) in a New Zealand study which used a clinic sample. They found that 36.8 % of the children in their sample had both hyperactivity and a diagnosis of CD (based on DSM-III criteria). In this study only 4 out of 108 children had a diagnosis of CD alone and only 2 children were diagnosed as having ODD alone, suggesting that in clinic samples conduct problems are found with other types of clinical problems.

McGee, Williams and Silva (1984) found that in their 7 year old subsample of children, 20.3% exhibited conduct problems and / or hyperactivity. It was also noted that the reading and spelling skills of boys identified as having conduct problems alone were comparable to children with no disorder, but those identified as hyperactive-only or conduct-problem with hyperactivity had poorer reading and spelling skills. Moreover, the conduct problem children with hyperactivity were 6 times more likely to be referred for professional services when compared to the remainder of the sample, indicating that they were regarded as having more serious problems. Clearly, the co-morbidity of behaviour problems increased the risk for impairment in social and academic functioning and the need for intervention.

Characteristics of Families with a Conduct Problem Child.

The family and the broader social context play important roles in the development of conduct problems (Coie & Jacobs, 1993). The families of conduct problem children are characterized by a high rate of parental psychopathology, alcoholism, criminality and aggression (Patterson, 1982). Family and marital conflict, divorce, and a high rate of single parent

households are more common in these families (Schachar & Wachsmuth, 1990). Additional risk factors associated with conduct problem children have been family stress, low socioeconomic status, overcrowding and parental unemployment (Quay, 1986).

Offord et. al., (1986) found that children with CD were three times more likely to be living with families on welfare and two times more likely to live in subsidized housing than children without CD. Family characteristics such as unemployment, and single parent status were significantly related to CD, as was overcrowding and low maternal education. Age and sex has also been significantly related to CD, whereas urban-rural residence was not (Offord et al., 1986)

According to Reid and Patterson (1991), adversities faced by families with a conduct problem child influence the development of conduct problems by undermining the effectiveness of parent discipline, as well as disrupting day-to-day parent-child interactions. They argue that parents and families who face repeated adversities are unable to raise well-socialized children because they have difficulty maintaining effective family management skills. For example, Haddad, Barocas and Hollenbeck (1991) found the quality of family relations to be the best predictor of conduct problems in boys.

In an analysis of longitudinal studies of conduct problems, Loeber and Dishion (1983) found that harsh and inconsistent discipline, poor supervision and low parental involvement were the best predictors of later delinquency and criminality. Reid and Patterson (1991)

proposed a social-interactional model for the development of conduct problems. They hypothesized that aggressive behaviour is often initially developed and maintained through the daily interaction between child and parents, and possibly between siblings as well. Essentially, the parental style of discipline is frequently characterized by inconsistency, punitiveness and negativity in response to negative child behaviours (Reid & Patterson, 1991). According to Dumas and Wahler (1983), positive child behaviours are sometimes not reinforced and may even be responded to in an aversive manner. When parents are ineffective, noncontingent and irritable in their attempts to deal with aggressive and noncompliant behaviour, these behaviours may become more severe over time. Patterson, Reid and Dishion (1992) describe a process of "basic training " in conduct problems that occurs in the context of an escalating cycle of coercive parent-child interactions which are then later generalized to other social interactions (e.g., peers) and settings (e.g., school).

Parental supervision and monitoring of the child have also been hypothesized as important factors in the development of conduct problems (Reid & Patterson, 1991). Reid and Patterson (1991) argue that a coercive relationship between parent and child, as well as poor monitoring, will result in the child drifting into a generalized pattern of conduct problems across settings. When parents are not able to keep track of their children's out-of-home activities, they are not able to encourage the acquisition of positive social skills or to provide corrective feedback for conduct problems. This, in turn, increases the chances of successful lying, stealing

and truancy.

Parent Characteristics. Lahey, Russo, Walker and Piacentine (1989) found disturbances of personality (as measured by the MMPI) in mothers of children with conduct problems. In particular, antisocial and hysteria / histrionic personalities were prevalent among these mothers. In addition, a number of studies have found that children's deviant behaviours are significantly influenced by parental personal adjustment, particularly maternal depression. For example, Patterson (1980) found that mothers who were distressed due to depression or marital dissatisfaction exhibited more commands and were more negative and hostile in their interactions with their children than non-distressed mothers. Using data from a 13 year longitudinal study, Fergusson and Lynskey (1993) found that the association between maternal depression and childhood disruptive behaviour stemmed from factors associated with long-term exposure to maternal depression rather than from concurrent depression. They found that long-term exposure to parental mental health problems rather than the effects of short-term or acute exposure to these problems affect childhood behaviour adjustment. The children of mothers who reported a severe and prolonged history of depression had significantly higher levels of conduct problems in early adolescence. According to Fergusson and Lynskey (1993) the association between maternal depression and conduct problems can be accounted for by social factors such as stress and marital difficulties which increase the risk for depression but also independently increase the risk for conduct problems.

Webster-Stratton and Hammond (1988) found that depressed mothers reported more stress than their spouses or other non-depressed mothers largely due to feelings of incompetence, social isolation, and a weak attachment to their child. Depressed mothers also reported twice as many negative life events in the previous year (e.g., unemployment, financial problems or death in the family) and were more likely to have been abused by their own parents, spouse or former boyfriends. Similar to Patterson's (1980) finding, it was noted that the mothers who were depressed had a more negative perception of their children and issued more commands and criticisms compared to their husbands and other non-depressed mothers (Webster-Stratton & Hammond, 1988). However, independent home observations found that the children of depressed mothers were not more deviant or noncompliant than the children of nondepressed mothers, despite the higher levels of behaviour problems reported by the depressed mothers (Webster-Stratton, 1988).

Webster-Stratton (1992) found significant correlations between single-mother status and high maternal depression with more negative perceptions of child adjustment. It was observed that single-parent status, low intelligence, and high personal stressors were associated with more critical behaviours by the mothers. Father characteristics such as high intelligence, depression and high negative stressors were associated with more negative perceptions of their children's behaviour. The findings from these studies suggest that parental perception of children may be influenced and somewhat distorted by factors other than the child's behaviour.

Schaughency and Lahey (1985) explain the association of maternal depression and rating of conduct problems according to the threshold model of maladaptive parenting behaviour. This model suggests that when parents are ill, intoxicated or depressed, they have a lower tolerance for child misbehaviour. When a parent's threshold for child misbehavior is lowered, they will respond more punitively to the same level of deviant behaviour. Not only will depressed parents respond more punitively, but they may also have an increased tendency to label their children deviant. An alternative suggestion offered by the same researchers, however is that externalizing behaviour problems produce depression in the mothers. These contradictory explanations emphasize the importance of objective measures of establishing which comes first, maternal depression or externalizing behaviour problems.

A treatment outcome study for 114 conduct disordered children by Webster-Stratton, Kolpacoff & Hollinsworth (1988) found that approximately 32% of the mothers reported a history of spouse abuse, while 20% of the mothers and 23.7% of the fathers reported that they were abused as children. Alcohol and drug abuse was also common in these families as 39.5% of the families reported alcohol or drug abuse in the immediate family and 61.4% reported such problems in the extended family (Webster-Stratton, Kolpacoff & Hollinsworth, 1988). In a sample of 43 boys between the ages of 4 and 11 referred to a child psychiatric outpatient department based in a childrens hospital, Schachar and Wachsmuth (1990) found that substance abuse, alcoholism, and diagnosed antisocial personality disorders were more prevalent in the

fathers of conduct problem children when compared to fathers of normal controls.

Single parent status as well as poverty are also factors which have been associated with conduct problems. Silver et al. (1992) conducted a study on seriously emotionally disturbed children in which half of the 812 children were from an in-patient psychiatric residential treatment centre and the other half from public school special education programs. They found that CD was the most frequent diagnosis, being identified in 66.9% of the children. This National Adolescent and Child Treatment study (Silver et. al., 1992) found that 49% of the entire sample lived with two parents (only 21% were living with two biological parents), while 40% of the sample lived in one parent homes compared to 24% in the general population. Twenty-seven percent of the sample lived in households below the poverty guidelines compared to a national rate of 15%.

In summary, it can be seen from the studies described that the families of children with conduct problems are characterized by a number of difficulties. The adversities which face these families may have implications for the initiation as well as success of treatment. Many of the families described in these studies were found to come from single parent homes and experienced unemployment or financial difficulties. The parents in these families were also characterized by a high rate of spouse abuse, alcohol and drug abuse, and abuse as a child themselves. Maternal depression has also been identified as a factor in maternal perceptions of conduct problems and may also be associated with the development and maintenance of conduct

problem behaviour.

The Present Study.

To date, there has been insufficient information collected on both the child and family characteristics of young conduct problem children referred to a general community-based children's mental health centre. The work by Webster-Stratton (1988, 1992) provides some insights into this issue, but her results are based on families referred to a special research funded University clinic dealing with conduct problems. As such, her findings may not be representative of the conduct problem child referred to a typical children's mental health centre. Furthermore, epidemiological studies (e.g. McGee, Williams, & Silva, 1984; Offord, Alder, & Boyle, 1986) and studies which examined at-risk samples (e.g. Patterson, Reid & Dishion, 1992) may also not be entirely representative. By describing and better understanding clinic referred conduct problem children, frontline clinicians will have first hand information that can be used to direct their assessment and treatment plans.

The literature also gives inconsistent results with respect to the identification of conduct problems in children when using teacher, mother and father ratings. Offord, Adler, and Boyle (1986) suggest that it may be important to determine the extent to which there are differences in CD identified by two sources or one source alone, as there may be differences in terms of severity and response to treatment. Studies which examined the behavioural ratings of parents and teachers found that differences in perception can be attributed to a number of factors such as

maternal depression, single-mother status and high negative life stressors. These factors in turn were found to influence parent child interactions. These findings make clear the need to understand and delineate the prevalence of such parent and family characteristics for conduct problem children referred to a children's mental health centre.

The social skills of children in this age group also need further exploration as only a few studies (e.g., Schachar & Wachsmuth, 1990; McGee, Silva & Williams, 1994) provide information on the co-morbidity of social skill problems with conduct problems. The association between conduct problems and hyperactivity has been well established. Since McGee et. al., (1984) and others found that a large number of the children referred for professional services for conduct problems also have a diagnosis of hyperactivity, the co-morbidity of conduct problems with Attentional\Hyperactivity problems is also important to examine in a clinic referred sample.

This study examines the child and family characteristics of clinic referred conduct problem children between the ages of 3 and 8. The following information was obtained as a means of describing these children and their families:

1. Information on family characteristics such as : income, single parent status, parental education and history of Children's Aid Society involvement were collected. Maternal and paternal ratings on depression, marital adjustment and social support were obtained as well as the association of parental depression with the severity of child behaviour problems.

2. Behavioural ratings were obtained independently from mothers, fathers, and teachers. The extent of agreement between mother and father ratings for clinically significant behaviour problems was examined as well as the pervasiveness of the reported conduct problems.

3. Finally, the comorbidity of Attentional/ Hyperactivity problems, social problems and internalizing difficulties with conduct problems were determined using both maternal and teacher ratings of behaviour.

Method

Participants

A total of 106 children, referred to the Lakehead Regional Family Centre (LRFC) for primary difficulties with conduct problems, hyperactive/impulsive behaviours, and reported school conduct problems were included. Families were excluded from this study if conduct problems were secondary to other presenting problems such as recent sexual abuse, significant separation/divorce problems or bereavement issues. The mean age of participating children was 5.6 years (SD = 1.7), (age 3, n=11; age 4, n=17; age 5, n=31; age 6, n=18; age 7, n= 6; age 8, n=23) and consisted of 77 boys (72.6%) and 29 girls (27.4%).

Out of all the referrals received at LRFC for the identified age group (n=538), 237 families were identified with primary conduct problem children and were contacted to participate in a treatment outcome study using a parenting group model for children. Of these

237 families, 76 were not included because it was determined by the parents and research assistant that the referral problem was not appropriate for the treatment outcome study (n=43), the referral did not materialize (n=26), or urgent service was required and the family could not wait for the study to begin (n=7). For the remaining 161 potentially appropriate families, 108 agreed to participate in the study resulting in a 67% acceptance rate. Two of these families dropped out of the study before data could be collected. Of the 51 families who refused to participate, 35 turned down the study because they did not want to participate in a parenting group and preferred individual counselling, and 16 refused because they could not make the time commitment to attend an evening parenting group. Of the 51 families that refused to participate, 39% were single parents. This is comparable to the 36% of single parent families participating in the study.

Measures

Parent Ratings of the Child's Behaviour

Child Behaviour Checklist. The Child Behaviour Checklist (CBCL; Achenbach, 1991a) consists of 113 behaviour-problem items which are rated on a 0-to-2 point scale. It consists of Competency Scales which assess the childs' involvement in activities, social relationships and academic performance. Problem Scales consist of behavioural and emotional problems of concern to the parents or mental health professionals as well as physical problems. There are nine problem subscales and these are grouped into two factors, to provide an Internalizing and an

Externalizing score. One week test - retest reliabilities for the Total Problem and Externalizing scales is .93, while similar strong psychometric properties were demonstrated with respect to construct validity. According to the manual, the CBCL Total Problem and Aggresive Behaviour Scales correlated .82 and .86 respectively with the Conners Total Problem Scales (Conners,1973).

Eyberg Child Behaviour Inventory. The Eyberg Child Behaviour Inventory (ECBI; Eyberg & Ross,1978) is a 36 item behavioural inventory of conduct problems for children aged 2 to 16 years. This inventory assesses behaviours on two scales. First, the Intensity Scale is used to assess the severity of a behaviour problem. The frequency of the behaviours are rated from Never (1) to Always (7). The items are added to yield an intensity score with a potential range of 36-252. Second, the Problem Scale identifies specific behaviours currently problematic for the parent. The Problem Scale is rated on a "Yes-No" basis and the sum of yes responses yields a problem score with a potential range of 0-36 (Eyberg, 1992). The developers report reliability coefficients from .86 (test-retest) to .98 (internal consistency).

Teacher Ratings of the Child's Behaviour

Teacher Report Form .The Teacher Report Form (TRF; Achenbach, 1991b) is a checklist which consists of 113 items, each rated on a 0-to-2 point scale (Achenbach, 1991b). Problem subscales and broad band dimensions of childhood behaviours are the same as the CBCL. Test-retest reliability of the TRF is .92 for all problem scales.

Parent Measures

Beck Depression Inventory. The Beck Depression Inventory (BDI; Beck, 1972) is a widely used self-report measure of general depression. It has a Spearman-Brown reliability coefficient of .93. The BDI has been shown to correlate significantly with clinicians' ratings of depression and with objective behavioural measures of depression.

Dyadic Adjustment Scale . The Dyadic Adjustment Scale (DAS; Spanier, 1976) provides an overall score which reflects four aspects of relationships: dyadic satisfaction, dyadic cohesion, dyadic consensus and affectional expression. Internal and external validity as well as reliability have been demonstrated to be high (Spanier & Thompson, 1982).

Support Scale (SUPPORT). This 20 item questionnaire developed by Procidano and Heller (1983) assesses parents' perceptions of support from family and friends (see Appendix A). It is correlated inversely with symptoms of distress, psychopathology, and low social competence. Alpha of .92 for the friends scale indicates good internal validity.

Procedure

Families requesting outclient help regarding conduct problem children or for more general parenting difficulties were approached and asked to participate in a treatment outcome study being conducted at the Lakehead Regional Family Centre. This study is a random assignment design comparing child/family individual therapy with a parent group treatment model for young conduct problem children (see Appendix B and C for ethical approval from the

Lakehead Regional Family Centre and local school boards). Families phoning in for help were screened by an Intake worker and all consecutive referrals which fit the criteria for the treatment outcome study were contacted by phone by a research assistant and an appointment was set up in the home to ask the families to participate. If the parent(s) agreed to participate, they were provided with a "Parent Informaton Letter" and parental consent was then obtained as shown in Appendix D. A comprehensive assessment was completed on the child and the family by a research assistant prior to beginning any treatment. Some of the measures were left with the family to complete and return by mail. If the family decided not to participate they got the typical service at the centre. If the child was of school going age, consent was obtained from the parents to gain information on the child from the teacher. Measures to be completed by the teacher were sent and returned by mail. If the measures were not returned by the teachers or parents, a follow-up phone call was made to request them to send in the completed forms. The following results are based on this pre-treatment information.

Results

Parent Characteristics

The mean age of mothers' was 33.0 years (SD=5.3) and fathers' was 37.4 years (SD=4.8). There were 38 single parents and 68 married or common-law families. A comparison of married and single mothers level of education found that there was no significant difference, (X^2, 3 df = 3.33, $p > .05$). However, there was a significant difference in the number of couple and single

families living in subsidized housing (X^2, 1 df = 14.76, p <.01). Only 11.8% of the couples lived in subsidized housing, but 44.7% of the single families lived in subsidized housing. There was also a significant difference in income between married and single families (X^2, 7 df = 78.86, p <.01). Forty-eight percent of the couples but none of the single families had an income greater than $50, 000. Ninety-one percent of the single families had an income less than $30, 000, with 40% of single families receiving an income between $10, 000 and $14, 999. Only one family reported a history of Children's Aid Society (CAS) involvement, out of the 62 families that responded to this item. While unable to be certain, it is likely that many more of those who did not respond to this item (41.5%) may have had CAS involvement but did not want to disclose such information within a research study. Based on parent reports, 10.2% of the families indicated that they had previously been reported to the CAS. Again, a significant number of parents did not respond to this item (27.8%), and may represent an underestimate of actual contact with child protection services in this sample. Table 1 presents information on the characteristics of families participating in this study.

Parental depression was defined as a Beck Depression Inventory (BDI) score of greater than or equal to 19, which falls into the moderate to severe range for depression. Table 2 presents the findings for all parent ratings on the BDI. It was found that 19% of the mothers and 10% of fathers had a BDI score greater than 19. When the ratings on the BDI were examined separately for married and single mothers, it was found that 26.3% of single mothers and 14.9%

Table 1

Family Demographic Information

Demographic information	Families (n = 106)	
	n	%
Mother's Education[a]		
Completed elementary	1	0.9
Some secondary	31	29.8
Completed secondary	23	22.1
Some college	15	14.4
Completed college	16	15.4
Some university	11	10.6
Completed university	7	6.7
Father's Education[b]		
Some secondary	14	24.1
Completed secondary	13	22.4
Some college	7	12.0
Completed college	13	22.4

Table 1 cont'd.

Family Demographic Information

Demographic Information	n	%
Fathers Education		
Some university	5	8.6
Completed university	6	10.3
Family income[c]		
Less than $10,000	7	6.9
10,000 -14,999	20	19.6
15,000 - 19,999	9	8.8
20,000 - 29,999	12	11.2
30,000 - 39,999	9	8.8
40,000 - 49,999	13	12.7
50,000 - 59,000	8	7.8
Greater than $60,000	25	24.5
Marital Status		
Single/Divorced/Separated	38	35.8

Table 1 cont'd

Family Demographic Information

Demographic Information	n	%
Marital Status		
Married/Common-law	68	64.2
Families living in subsidized housing		
Married (n=68)	8	11.8
Single (n=38)	17	44.7

Note. a, n=104; b, n=58; c, n=103

Table 2

Parent Ratings on the Beck Depression Inventory (BDI)

	Mothers (n=105)		Fathers (n=50)	
BDI Ratings	n	%	n	%
Normal				
(0-9)	54	51.4	38	76.0
Mild/Moderate				
(10-18)	31	29.5	7	14.0
Moderate/Severe				
(19-29)	12	11.4	3	6.0
Extremely severe				
(30 and above)	8	7.6	2	4.0

of married mothers had a BDI score greater than or equal to 19 (see Table 3). Chi square analysis comparing married and single mothers with BDI scores less than or greater than 19 revealed no significant difference, X^2, 1df = 1.19, $p > .05$. Comparison of fathers and mothers who had a BDI score greater than 19 with those below a BDI score of 19 also did not find a significant difference, X^2, 1 df = 1.96, $p > .05$.

A comparison of mother and father ratings of their BDI total score through a Dependent samples t-test revealed a significant difference between their scores, $t(49) = 3.8$, $p < .001$. Fathers' BDI mean score of 7.4 (SD=7.8) was significantly lower than mothers' mean score of 12.7 (SD=11.4). A Dependent samples t-test was also used to compare couples on their ratings of perceived social support and marital adjustment. A significant difference was found between mothers and fathers on perceived social support, $t(38)=10.3$, $p<.001$, with mothers ($M = 15.5$) reporting much higher levels of support when compared to fathers ($M = 7.0$). Parents did not differ on their report of marital adjustment based on the Dyadic Adjustment Scale (see Table 4).

Pearson product moment correlations were conducted to see if there was a relationship between parent ratings on the BDI and their ratings of children on the CBCL. Father's BDI scores and child behavioural ratings were significantly correlated on the CBCL Delinquency scale ($r = .38$, $p < .01$) and the CBCL Total score ($r = .30$, $p < .05$). Mothers' BDI scores were significantly correlated with their ratings of CBCL Internalizing problems ($r = .37$, $p < .001$) and Total CBCL score ($r = .27$, $p < .01$; see Table 5).

Table 3

Beck Depression Inventory (BDI) Ratings for married and single mothers

	Mothers			
	Single (n=38)		Married (n=67)	
BDI Ratings	n	%	n	%
Normal				
(0-9)	15	39.5	39	58.2
Mild/Moderate				
(10-18)	13	34.2	18	26.9
Moderate/Severe				
(19-29)	7	18.4	5	7.5
Extremely severe				
(30 and above)	3	7.9	5	7.5

Table 4

Comparison of parent ratings on depression, marital adjustment, and social support

Measure	n	Mothers M (SD)	Fathers M (SD)	t value
BDI[a]	49	12.7 (11.4)	7.4 (7.8)	3.80***
Social Support	38	15.5 (4.5)	7.0 (4.6)	10.30***
Dyadic Adjustment Scale				
Total	32	109.2 (17.3)	112.0 (15.9)	1.27
SAE[b]	32	9.0 (2.8)	9.0 (2.4)	.00
Cohesion	32	14.7 (3.5)	15.3 (4.5)	.69
Consensus	32	48.6 (8.9)	49.2 (7.9)	.44
Satisfaction	32	36.9 (6.7)	38.6 (5.5)	1.92

Note. ***p<.001; a = Beck Depression Inventory; b = Affectional Expression

Table 5

Correlations between parent Child Behavior Checklist (CBCL) ratings and Beck Depression Inventory (BDI) scores

BDI score	CBCL Scale					
	Aggression	Attention	Delinquency	Internalizing	Externalizing	Total
Mother[a]	.01	.19	.15	.37***	.05	.27**
Father[b]	.19	.11	.38*	.28	.25	.30*

Note. ***p<.001; **p<.01; *p<.05; a, n=84; b, n=40

Comparison of Mother and Father ratings

Tables 6 and Table 7 present information on the means, standard deviations, and the percentage of children reaching clinical significance for parent and teacher behavioural ratings. As recommended in the CBCL manual for discrimination between deviant and non-deviant children (Achenbach, 1991a), analysis was completed using CBCL raw scores defining clinical significance as 1.3 standard deviations above the mean (T = 63) for the Total, Internalizing and Externalizing scales, and 2 standard deviations above the mean (T = 70) for the Delinquency, Aggression, and Attention subscales of the CBCL. The 4-18 year old CBCL was used in this study. Thus, the following results are based on the 4 to 8 year old children participating in this study. Across all CBCL scales, mothers rated more boys as above the clinical significance level when compared to teachers who, in turn, rated more boys above clinical significance compared to fathers. On the ratings for girls (see table 7), fathers rated more as above the clinical cut-off on the Internalizing scale compared to mothers and teachers, but on the other CBCL scales mother ratings were again higher than both father and teacher ratings.

On the ECBI, clinical significance was defined as a score greater than 131 on the Intensity scale, and a score of 15 was used to define clinical significance on the Problem scale. Again, mothers rated more children as scoring above the clinical cut-offs than fathers. For example, mothers rated 59.7% of boys as above the clinical cut-off, whereas fathers rated 51.3% as above on the Problem scale (see Table 6). Mothers also rated more girls (67.9%) above the

Table 6

Comparison of Mother, Father and Teacher raw score behavioural ratings of boys

Measure	Mothers (n=63)		Fathers (n=33)		Teachers (n=48)	
	M (SD)	C.S.[a]	M (SD)	C.S.	M (SD)	C.S.
CBCL[b]						
Attention	7.0 (4.0)	34.9	6.5 (2.9)	18.2	15.1 (10.3)	22.9
Aggression	19.8 (7.7)	49.2	15.8 (6.7)	27.3	15.9 (12.0)	39.6
Delinquency	4.0 (2.9)	27.0	2.9 (1.8)	6.1	2.3 (2.3)	22.9
Internalizing	11.6 (7.9)	39.7	8.4 (6.5)	36.4	8.9 (7.9)	29.2
Externalizing	23.8 (9.7)	65.1	18.8 (7.9)	45.5	18.2 (13.7)	56.3
Total	56.2 (23.7)	68.3	44.4 (20.0)	51.5	48.0 (29.2)	58.3
ECBI[c]						
Problem	18.2 (7.9)	59.7[d]	16.2 (9.1)	51.3[f]	10.0 (8.6)	
Intensity	142.1 (33.8)	65.8[e]	140.0 (31.0)	66.7[f]	109.4 (46.5)	

Note. a = The percentage of children rated with clinically significant problems; b = Child Behaviour Checklist; c = Eyberg Child Behavior Inventory; d, n=77; e, n=76; f, n=39

Table 7

Comparison of Mother, Father and Teacher raw score behavioural ratings of girls

	Mothers (n=20)		Fathers (n=9)		Teachers (n=20)	
	M (SD)	C.S.[a]	M (SD)	C.S.	M (SD)	C.S.
CBCL[b]						
Attention	6.8 (3.2)	45.0	6.6 (2.1)	44.4	13.1 (9.3)	30.0
Aggression	19.6 (6.3)	65.0	18.3 (6.2)	55.6	11.7 (10.0)	30.0
Delinquency	4.0 (2.9)	30.0	2.7 (1.2)	11.1	1.9 (2.1)	30.0
Internalizing	12.4 (8.5)	35.0	12.4 (8.9)	55.6	5.9 (4.8)	10.0
Externalizing	23.6 (7.5)	80.0	21.0 (6.9)	55.6	13.6 (11.8)	50.0
Total	59.0 (22.6)	70.0	54.6 (20.3)	66.7	36.1 (24.4)	40.0
ECBI[c]						
Problem	17.7 (6.0)	67.9[d]	16.4 (6.5)	61.5[e]	6.2 (6.6)	
Intensity	139.4 (24.8)	67.9[d]	124.5 (24.7)	46.2[e]	95.6 (41.5)	

Note. a = percentage of children rated with clinically significant problems; b = Child Behavior Checklist; c = Eyberg Behavior Inventory; d, n=28; e, n=13

cut-off than fathers (61.5%) on the Problem scale (see Table 7).

The CBCL scales were analyzed using a two way mixed ANOVA, with gender (boys and girls) as the between factor and source (mother and father) as the within factor. This analysis is based on a subset of children where both mother and father ratings were available. Analyses indicated that there was no significant effect for gender or interaction on the Externalizing scale. However, main effect for parent rating was found on the Externalizing scale ($F(1,37) = 9.20$, $p < .004$) with mothers reporting significantly more behaviour problems than fathers. Parents also differed significantly on their ratings of children on the Internalizing scale, $F(1,37) = 5.06$, $p < .03$, and the Total Problem scale, $F(1,37) = 11.66$, $p < .002$, but no gender or interaction effects were observed. In both cases, mother ratings were significantly higher than father ratings for boys and girls. A similar main effect for parent rating was found on the Aggression subscale ($F(1,37) = 5.33$, $p < .02$). On the Delinquency subscale, a significant interaction was found between parent ratings and gender, $F(1,37) = 5.35$, $p < .002$. Girls were rated much higher by mothers ($M = 5.1$) compared to fathers ($M = 2.5$), while mother ($M = 3.6$) Delinquency ratings for boys were lower than that for girls and similar to the father ($M = 3.1$) ratings. The findings on the Attention subscale were not significant.

Comparisons of parent ratings on the ECBI Intensity and Problem scales were also conducted using a mixed ANOVA, with gender (boys and girls) as the between factor and source (mothers and fathers) as the within factor. The difference between mother and father ratings on

the ECBI Problem scale approached significance, $F(1,45)=3.54$, $p=.07$, as did the difference between parent ratings on the ECBI Intensity scale, $F(1,45)=3.90$, $p=.06$.

Again using raw scores on the CBCL, clinical significance on the Total, Internalizing, and Externalizing scales was defined as a T=63, while T= 70 was used for Attention, Aggression and Delinquency subscales. Table 8 provides information on the number of children who were rated above a clinical cut off score on the CBCL by either mothers alone, fathers alone, both mothers and fathers and by neither parent. Only 37.5% of the boys were rated above the clinical cut-off on the Externalizing scale by both parents. On the Internalizing scale, 31.3% were rated above the clinical cut-off by both parents, and on the Total scale 43.8% of the boys were rated above the clinical cut-off by both. On the ratings for girls, there appeared to be greater agreement between parents. Fifty percent were rated above the clinical cut-off on the Externalizing scale, 57.1% on Internalizing scale and 62.5% on the Total scale by both parents.

Correlations between Mother, Father and Teacher Behavioural Ratings

Pearson product moment correlations were used to examine the degree of similarity among parent and teacher ratings using the parent and teacher forms of the CBCL (see Table 9). Since the Teacher Report Form (TRF) of the CBCL starts at age 5, school ratings are based on only the 5 to 8 year old children participating in this study. Mothers' and fathers' perceptions of child deviance were significantly correlated on the Aggression, Attention, Delinquency, Externalizing, Internalizing, and Total scales of the CBCL. Mother and teacher ratings were

Table 8

Agreement between Mothers and Fathers on the number of children rated with clinically significant behaviour problems on the Child Behaviour Checklist (CBCL)

		Parents			
		Disagreements		Agreement	
CBCL	Gender	Mothers only	Fathers only	Mothers and Fathers	None
		n (%)	n (%)	n (%)	n (%)
Externalizing	Boys	8 (25.0)	2 (6.3)	12 (37.5)	10 (31.3)
	Girls	2 (25.0)	0 (0.0)	4 (50.0)	2 (25.0)
Internalizing	Boys	4 (12.5)	2 (6.3)	10 (31.3)	16 (50.0)
	Girls	0 (0.0)	1 (14.3)	4 (57.1)	2 (28.6)
Total	Boys	8 (25.0)	2 (6.3)	14 (43.8)	8 (25.0)
	Girls	1 (12.5)	0 (0.0)	5 (62.5)	2 (25.0)

Note. This a subset of children where both mother and father ratings were available (boys, n=32, girls, n=8).

Table 9

Correlations of Parent and Teacher behavioural Ratings on the Child Behavior Checklist (CBCL)

CBCL	MF[a] (n=40)	MT[b] (n=62)	FT[c] (n=33)
Aggression	.62***	.15	.06
Attention	.49***	.34**	.03
Delinquency	.50***	.39**	.24
Externalizing	.63***	.23	.11
Internalizing	.66***	.20	.29
Total	.62***	.23	.04

Note ***$p < .001$ **$p < .01$; a = mother- father correlations;

b = mother - teacher correlations; c = father - teacher correlations

correlated only on the Attention and Delinquency subscales whereas father ratings were not significantly correlated with any of the teacher ratings.

Pervasiveness of Conduct Problems

Table 10 provides information on the number of children reaching clinical significance on the Externalizing, Internalizing and Total scales of the CBCL based on mother and teacher ratings. Of the 46 boys rated by both mothers and teachers, only 36.2% were rated by both as scoring above the clinical cut-off on the Externalizing scale, 10.9% of the boys were rated above the clinical cut-off on the Internalizing scale by both, and 37.0% were rated above the cut-off on the Total scale by both mothers and teachers. The number of girls rated by both mothers and teachers was 15. Of these girls, 40.0% were identified by both mothers and teachers as scoring above the clinical cut-off point, 6.7% were identified by both on the Internalizing scale and 26.7% were identified by both on the Total scale. Chi square analysis revealed a non-significant difference between boys and girls based on mother and teacher ratings on the Total scale, χ^2, 3 df = .53, $p > .05$.

The Co-morbidity of Externalizing Problems with other Clinical Problems.

The comorbidity of externalizing problems with attention problems as rated by mothers and teachers is presented in Table 11. The number of children identified by mothers and teachers as having either Attention only, Externalizing only, or both Externalizing and Attention, or no problems at all is shown. Mothers rated 32.1% of the children as having both externalizing and

Table 10

Agreement between Mothers and Teachers on the number of children Rated with clinically significant behaviour problems on the Child Behavior Checklist (CBCL)

		Disagreement		Agreement	
CBCL[a]	Gender	Mothers only	Teachers only	Mothers and Teachers	None
		n (%)	n (%)	n (%)	n (%)
Externalizing	Boys	15 (31.9)	4 (8.5)	17 (36.2)	11 (23.4)
	Girls	6 (40.0)	0 (0.0)	6 (40.0)	3 (20.0)
Internalizing	Boys	14 (30.4)	7 (15.2)	5 (10.9)	20 (43.5)
	Girls	6 (40.0)	0 (0.0)	1 (6.7)	8 (53.3)
Total	Boys	13 (28.3)	5 (10.9)	17 (37.0)	11 (23.9)
	Girls	6 (40.0)	1 (6.7)	4 (26.7)	4 (26.7)

Note. This is a subset of children where both mother and teacher ratings were available (boys, n=47, girls, n=15)

Table 11

Mother and Teacher ratings of Externalizing and Attention problems

CBCL[a]	Mother	Teacher
	n (%)	n (%)
Attention only	4 (4.8)	4 (5.1)
Externalizing only	30 (35.7)	24 (30.8)
Attention+Externalizng	27 (32.1)	13 (16.7)
None	23 (27.4)	37 (47.4)

Note. a = Child Behavior Checklist

attention problems, whereas teachers rated only 16.7% as having both. Both mothers and teachers each identified 4 children as having attention problems only, with mothers and teachers rating 27.4%, and 47.4% of the children respectively as not having any conduct problems. The difference between mother and teacher ratings of externalizing and attention problems was non-significant, X^2, 3 df = 4.31, p >.05.

Table 12 provides information on the number of children who were identified by both mothers and teachers as having either externalizing problems alone, social problems alone (based on the CBCL social problems subscale), or both externalizing and social problems. Mothers identified 23.8% of the children as having both, and teachers rated 16.9% as having both. Teachers also identified many more children with no problems (50.6%) compared to mothers (28.6%). A significant difference was found between mother and teacher ratings of the child on Externalizing and Social problems, X^2, 3 df = 8.88, p <.05.

The number of children identified as having either Externalizing only, Internalizing only or Internalizing and Externalizing problems is presented in Table 13. Mothers identified 33.3% of the children as having both externalizing and internalizing problems, whereas teachers identified only 15.6% as having both. The difference between mother and teacher ratings of the child on Externalizing and Internalizing problems was found to be significant, X^2, 3 df = 9.32, p <.05.

Table 12

Mother and Teacher ratings of Externalizing and Social Problems

CBCL[a]	Mother	Teacher
	n (%)	n (%)
Externalizing only	37 (44.0)	24 (31.2)
Social only	3 (3.6)	1 (1.3)
Externalizing+Social	20 (23.8)	13 (16.9)
None	24 (28.6))	39 (50.6)

Note. a = Child Behavior Checklist

Table 13

Mother and Teacher ratings of Externalizing and Internalizing Problems

CBCL[a]	Mother	Teacher
	n (%)	n (%)
Internalizing only	4 (4.8)	4 (5.2)
Externalizing only	29 (34.5)	25 (32.5)
Internalizing and Externalizing	28 (33.3)	12 (15.6)
None	23 (27.4)	36 (46.8)

Note. a = Child Behavior Checklist

Discussion

This study was intended to identify the family and child characteristics of children referred to a children's mental health centre because of difficulties with various degrees of conduct problems. Overall, these findings are consistent with those found in previous research on conduct problem children. However, some differences, as noted below, were found with respect to the severity and degree of conduct problems exhibited by these clinic referred conduct problem children.

Parent Characteristics

Consistent with the findings by Offord et al. (1986) and Silver et al. (1992) a large percentage of the single families in this study lived in subsidized housing with 40% reporting an income between $10, 000 and $14, 000. Two parent families were relatively much better off with 48% reporting an income greater than $50,000. Of the 62 families who responded to the item on previous CAS involvement, only 1 family indicated that they had previous CAS contact. Interpretation of the remaining 41.5% of families who did not respond to this item is difficult to determine. It may be that these families have had CAS involvement or may currently be involved with the CAS, but were not comfortable reporting this information. As 27.8% of the families did not respond to the item pertaining to whether they had previously been reported to the CAS, this may also be an underestimate of actual contact with child protection services.

In addition to income and single parent status, past research has demonstrated the

importance of examining depression levels in parents of conduct problem children (e.g., Fergusson & Lynskey 1993; Schachar & Wachsmuth 1990). When using a strict clinical cut-off score (BDI greater and/or equal to 19), 19% of the mothers in this study were found to be depressed. Although the percentage of single mothers (26.3%) who were depressed was greater than that of married mothers (14.9%), this was not statistically significant. When compared to other clinic samples, the mothers in this study had a higher mean BDI score ($\underline{M}$ = 12.9) than that found in Webster-Stratton's (1988) sample ($\underline{M}$ = 7.69). The fathers in this study ($\underline{M}$ = 6.8) also had a higher mean BDI score when compared to fathers in the Webster-Stratton (1988) study ($\underline{M}$ = 5.2). Thus, the parents in this study appear to be equally if not more depressed as the parents seen in other clinic samples. If a more liberal criterion for depression was used in this study similar to other studies (e.g., Webster-Stratton & Hammond, 1988; BDI > 10), roughly 50% of the mothers and 24% of fathers would be considered to be experiencing some degree of depression. These results suggest that depression was a significant issue for these families at the time of referral, and point to the importance of assessing parent depression levels in clinic referred children as it may be an important issue to address in treatment.

The finding that mother and father depression scores were significantly correlated with parent behavioural ratings is consistent with those of Schaughency and Lahey (1985) and Webster-Stratton (1988). In this study, fathers' depression scores were significantly correlated with the Delinquency subscale and Total scale of the CBCL, but mothers' depression scores were

significantly correlated with their child behaviour ratings on the Internalizing and Total behaviour problems scales but not the Externalizing scale. This latter finding is in contrast to that reported in much of the literature where a strong relationship is usually found between maternal depression and child conduct problems (Richters, 1992). The lack of an association between maternal depression and child conduct problems but a positive relationship with child internalizing problems suggests that parent factors may be important to examine. It also points to the importance of looking at other child characteristics such as internalizing issues and not just externalizing when looking at parent depression.

Overall, the mean marital adjustment scores of parents in this study were found to be within the normal range. Mothers ($\underline{M}$ = 109.0) and fathers ($\underline{M}$ = 112.0) did not differ in in their report of marital adjustment and were both similar to the DAS (Spanier, 1976) standardization norm for married couples ($\underline{M}$ = 114.8). Unlike depression, the results of this study suggest that marital difficulties may not be as pronounced in clinic referred conduct problem children. This finding should be interpreted with caution however, as data were unavailable for roughly 50% of the couples in this study. These unavailable couples may be the ones who had the most severe marital problems. However, additional analysis comparing children of couples with DAS results with those who had the DAS missing indicated that they did not differ on maternal CBCL Externalizing, Total and teacher Externalizing ratings. While marital difficulties are often put forward as a factor accounting for conduct problems in children, these current results are

consistent with those reported by other researchers who have not found differences between mothers and fathers in the reporting of marital satisfaction (Webster-Stratton, 1988) or the lack of an association between marriage satisfaction and child conduct problems (Schaughency & Lahey, 1985). It must be remembered, however, that families with primary and significant separation and divorce issues were intentionally excluded from the current sample. This bias may have screened out many families who experience severe marital problems in addition to having conduct problem children.

In terms of social support, a significant difference was found between mother and father ratings. Mothers reported having greater social support ($\underline{M}$ = 15.9) when compared to fathers ($\underline{M}$ = 7.3). Possible interpretions of this difference may be due to gender differences in relating to friends and family. Women may have more of an emotional bond with friends and family and may be more willing to discuss problems or seek help from them. On the other hand, men may be less willing to admit a need for help or support of friends and family and may therefore not rely on friends or family for support in the same way women would. Again, these results must be interpreted with caution as data was unavailable for almost 40% of the couples.

Mother, Father and Teacher Agreement on Clinical Significance

Comparison between parent and teacher ratings of problem severity on the CBCL found that mothers consistently rated more boys as scoring above the clinical cut-off compared to teachers and fathers. Except for the Internalizing scale, teachers consistently reported more

problems than fathers. However, father ratings for girls on the CBCL Internalizing scale was the only scale on which fathers rated more girls above the clinical cut-off (55.6%) when compared to mothers (35%) or teachers (10%). On the other CBCL scales, the ratings of girls revealed a similar trend to those of boys with mothers rating more girls above the clinical cut-off when compared to teachers or fathers. In contrast to the findings on parental depression, parent ratings of behaviour problems in this study were lower than the ratings of parents in Webster-Stratton's (1988) study. For example, mother raw score ratings of Externalizing behaviour problems in boys was 23.8 (SD = 9.7), compared to a mean of 28.1 (SD=11.6) in Webster-Stratton's study (1988), while father ratings of 18.8 (SD=7.9) were much lower than the fathers in Webster-Strattons study with a mean of 26.2 (SD=10.0).

Webster-Stratton (1988) did not find a significant difference between mother and father CBCL ratings, but in this study mothers consistently reported more severe behaviour problems than fathers on the Externalizing, Internalizing and Total Problem scales. Based on ECBI ratings, Webster-Stratton (1988) found that mothers perceived their children's behavioural problems as occuring more frequently and were more likely to perceive these behaviours as problematic when compared to fathers. In this study, the difference between mother and father ratings on the ECBI approached significance. The finding by Webster-Stratton (1988) and this study emphasize the importance of including a parent rating measure by both mothers and fathers, such as the ECBI, because it allows parents to indicate whether they see the behaviour as being problematic

for them. Although not assessed here, the higher ratings by mothers may also be due to the fact that mothers absorb more of the stress related to parenting than fathers do (Webster-Stratton, 1988).

The finding that roughly 65% of the children based on maternal ratings have clinically significant Externalizing problems, implies that an important minority of outclient children do not have clinically severe behaviour problems. It may be that the problems are of a more moderate degree. This was not investigated in this study and warrants further examination. For example, it may be worth looking at the number of referred children who fall within the borderline range for both the CBCL scales (T=60 to 63) and subscales (T=67 to 70). It may also be that additional family/contextual or personal parental difficulties may be important factors in these families seeking treatment for children with sub-clinical levels of problem behaviour. Additionally, behavioural measures may not fully capture the complexity of family difficulties and the need for a broader family-systems assessment may be more important to consider.

The findings of this study are consistent with that found by Mcgee et al. (1984) and in contrast to the Ontario Child Health Study (1986) in that behaviour problems were more likely to be identified within the home setting. Mothers identified 65% and 80% of boys and girls respectively as having externalizing problems, compared to teachers who only identified 56% of boys and 50% of the girls with externalizing problems. This is perhaps not surprising in this study as the Lakehead Regional Family Centre is a parent self-referred centre. It may be less

likely for families to refer for help if their child is only experiencing problems in the school setting. These results indicate that many young clinic referred conduct problem children present with situational problems, and difficulties have not yet progressed to the point where disruptive behavioural problems span across multiple settings (Patterson, Reid, & Dishion, 1992). This is a promising finding in that treatment can be expected to be more successful if it fully addresses treatment needs at a developmentally early time in the child's life. It was also noted that for such a young sample of children, there was an important minority who presented with pervasive conduct problems (37%). These latter children are clearly at high risk and will likely require fairly intensive intervention (McGee et. al., 1984).

Webster-Stratton (1988) found father ratings to be more highly correlated with teacher ratings than mother ratings, whereas in this study none of the father ratings were significantly correlated with teacher ratings. Given the significant mother-teacher association for problem identification, it can be inferred that the ratings of mothers in this study may be more accurate than the father ratings. As suggested by Schaughency and Lahey (1985), mothers in this study may spend more time with their children than fathers do, and so may be more aware and concerned about the behavioural difficulties exhibited by their children.

The results of this study are consistent with those of both epidemiological and clinic sample studies in terms of the moderate level of agreement among various raters of child conduct problems. This emphasizes the importance of obtaining information and objective

ratings of behavioural problems through structured clinical interviews from multiple sources and settings.

The Co-morbidity of Externalizing problems with other problems

The co-morbidity of conduct problems with other problems such as attention and social problems have been reported in both epidemiological and clinic samples (eg., McGee et. al., 1984; Offord et. al., 1986; Reeves et. al., 1987). The co-morbidity of conduct problems with other problems gives an indication of the severity of behaviour problems exhibited by the child and the likelihood for referral to professional services (McGee et al., 1984). In this sample of children, based on mother ratings, 4.8% had attention problems only, 32.1% were found to have externalizing and attention problems, 35.7% had externalizing problems only and 27.4% did not exhibit any problems. These findings have implications for the type of intervention needs of families who attend a community based children's mental health centre. They suggest that treatment needs must be comprehensive and address additional behavioural concerns other than just defiance and anger problems which are often the primary reason for referral. For example, children with less severe problems may only need short-term intervention, whereas others such as those with very severe and/or comorbid problems may need more intensive and long term services. Children with comorbid problems may need additional intervention such as social skills training or academic remediation. The parents of moderate problem children will also need intervention, possibly in the form of educating them on the nature of childhood behavioural

problems or limited to a parenting program.

Methodological Limitations

One weakness of this study was the use of dimensional rating scales independent of any objective third party assessment or rating. Dimensional behaviour scales are prone to distortions and biases and, in some cases, do not fully reflect actual child behaviour. Parent ratings have been found to be influenced by other factors (i.e. depression levels, intelligence) and may represent perceptions or attitudes and not actual behaviour. An objective home observation rating may have helped to determine the severity of child behaviour problems. While teachers provided an objective rating of the child, evaluation by a clinician would have been ideal. In a similar vein, the clinical cut-offs used in this study were stringent. The use of Borderline clinical ranges on the CBCL, for example, may have provided a somewhat different picture of child characteristics and a better understanding of child behaviour problems.

Another important caveat to consider in this study is the possible biases in the sample selection process and the refusal of some families to participate. Families and children with additional problems where conduct problems were regarded as a secondary referral issue to other issues such as sexual abuse or separation/divorce were not included. As many families were screened out during the selection process, this sample of children may not be fully representative of all conduct problem children who attend a children's mental health centre. However, the sample studied here does represent 21% of all referrals received in the 3 to 8 year old age group,

regardless of presenting problems, and 67% of the referred conduct problem children considered to be appropriate for the ongoing treatment outcome study. Consequently, these families do constitute a significant portion of the referrals for conduct problems received at a children's mental health centre. It is also important to note that the Lakehead Regional Family Centre is a self-referred volunteer centre. Thus the families in this study represent those families who were motivated and willing to ask for help on an out-client basis and were aware of this resource.

Recommendations

In this study there were a number of children who were below clinically significant levels on conduct behaviour problems. This raises an important question as the Lakehead Regional family Centre is a self-referred volunteer centre and this is a clinical sample. Parents are not likely to refer their child for help unless they perceive that child as having a problem. It would be important to further assess these families to better understand the nature of the child and parenting difficulties. Whether the behavioural measures used in this study fully capture and are an accurate reflection of what is happening in these families and children needs to be determined. It may be that the problems these children present with are very specific and limited in nature. Thus, they do not possess the broad range of conduct problems assessed by the CBCL. It may also be that the problems of the children in this study were of a more moderate level but still above normal. In these cases, childrens' mental health clinics may provide valuable prevention for children when they are young and most amenable to intervention and change. For

children with pervasive (37%) or co-morbid behaviour problems more intensive and a wide range of services needs to be available.

The results of this study suggest that there is a need to determine a broad spectrum of services and interventions for families who attend a children's mental health centre, ranging from short to long term therapy. Given the range of problem severity, problem pervasiveness for a significant minority of children, and comorbid problems, it will also be important to implement an intake and assessment process that will direct families appropriately within this broad spectrum of intervention services.

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Appendix A

Support Scale

SUPPORT SCALE

The statements which follow refer to feelings and experiences which occur to most people at one time or another in their relationships with friends. For each statement there are three possible answers: yes, no, don't know. Please check the proper column for each item.

Please answer all of the items on front and back. Thank you.

ITEM	YES	NO	DON'T KNOW
1. My friends give me the moral support I need.			
2. Most other people are closer to their friends than I am.			
3. My friends enjoy hearing about what I think.			
4. Certain friends come to me when they have problems or need advice.			
5. I rely on my friends for emotional support.			
6. If I felt that one or more of my friends were upset with me, I'd just keep it to myself.			
7. I feel that I'm on the fringe in my circle of friends.			
8. There is a friend I could go to if I were just feeling down, without feeling funny about it later.			
9. My friends and I are very open about what we think about things.			
10. My friends are sensitive to my personal needs.			
11. My friends come to me for emotional support.			
12. My friends are good at helping me solve problems.			
13. I have a deep sharing relationship with a number of friends.			
14. My friends get ideas about how to do things or make things from me.			
15. When I confide in friends, it makes me feel uncomfortable.			
16. My friends seek me out for companionship.			
17. I think that my friends feel that I'm good at helping them solve problems.			
18. I don't have a relationship with a friend that is as intimate as other people's relationships with friends.			
19. I've recently gotten a good idea about how to do something from a friend.			
20. I wish my friends were much different.			

When you were thinking about friend(s), who did you primarily think about?

____ neighbour

____ work or school associate

____ another parent

____ counselor/therapist

____ rabbi/priest/minister

____ other

Appendix B

Ethical Approval from Lakehead Regional Family Centre

Appendix C

Ethical Approval from School Boards

Appendix D

Parent Information Letter

LAKEHEAD
REGIONAL
family centre

PARENT INFORMATION LETTER

Dear Parent:

You may or may not not realize that roughly 1 in 10 children show serious behaviour problems involving some form of disobedience to parents or teachers, aggressiveness, temper tantrums, and poor social skills. Very often, these children are sad and lonely with poor self-esteem and, without help, will usually continue to have problems year after year.

At the Lakehead Regional Family Centre about one-half of the families who ask for our help have children with these kinds of behaviour problems. Traditionally, when parents have asked for our help, we have provided services on an individual basis. This involves meeting with parents and finding out from them what they see as the major problems and how the counsellor can be of the most help. A plan of action is then taken which may involve individual sessions with parents to discuss strategies for dealing with the problems, individual counselling for the child, family therapy, or some combination of the above. This approach has many advantages to it. For example, families can have treatment tailored to their specific needs and modified according to their unique situation. However, it does involve a large use of each counsellors time and limits the number of families that we are able to help. As a result, families often have to wait three to six months before a therapist is available to work with them.

Currently, our centre is trying out a new parenting group for parents of young children with behaviour problems. We hope this program will help us to provide a fast, but equally helpful, service. In these groups, we ask parents to become the therapists for their child, while the group leaders become the co-therapists. We share information and show videotapes of parents trying out different strategies and practice these strategies in the group. Parents then go home and try the different strategies out. In this way the parents become the expert about what works with their child. Parents have really enjoyed the program so far and told us that they have found it very helpful. The advantage of these groups is that we can see up to seven families at once and hopefully provide faster service.

While we know that parents like the parenting groups, we don't know if it is as helpful to families as our usual treatment. This is where you can help us. We need families to take part in this study so that we can compare the effectiveness of our traditional individual counselling with counselling that begins with these new parenting groups. What we learn from this study will help us to

better serve families in the future. By being part of this study, you will be helping us to be more helpful with other families like yours in the future.

An important part of this study is that we must randomly assign families into the different treatment programs. This means that you will not have any choice about which service you receive. We must also ask 1 in 7 families to wait 15 weeks for treatment to begin so that we can have a no-treatment comparison group. However, after the 15 week waiting period is over you will be able to begin treatment.

In order to determine the effectiveness of each treatment program, we must ask you to fill out some questionnaires and talk to you on the phone at three different assessment periods: before treatment begins, 15 weeks after treatment has begun, and then one year later. You will be paid $30 for completing the questionnaires after 15 weeks, and another $50 dollars for completing the questionnaires one year later. We will also ask your child's teacher to fill out some questionnaires about your child's behaviour at each of these assessment periods. All families who participate will get a copy of our report summarizing what we learned. Of course, all information will be kept confidential and we will not use the names of any parents or children.

If you have any questions, please call either Dr. Ted Taylor (343-5021) or Dr. Fred Schmidt (343-5016) at the Lakehead Regional Family Centre.

Parent Consent Form

I have read the "Research Information Sheet" and I agree to take part in this study as a volunteer. In agreeing to volunteer I understand that:

1. I will be asked to fill out some questionnaires now, in 15 weeks, and in one year.

2. I will allow my child's teacher to fill out some questionnaires on my child's behaviour, and to let the researchers get my child's report card from the school.

3. I will be offered treatment at the Lakehead Regional Family Centre, but I won't get to choose which treatment. I may be placed in a parenting group, or I may be offered the usual treatment at the centre, or I may be asked to wait 15 weeks and then be offered treatment.

4. If I take part in the parenting group, our family can still get help from the Lakehead Regional Family Centre after the group is over.

5. All information collected will be kept strictly confidential, and no information will ever be used which could identify us.

6. Our family will be paid $30 for completing the questionnaires and allowing the researchers to ask my child's teacher to complete questionnaires 15 weeks after treatment begins. We will also be paid $50 for doing this one year later.

7. I will receive a summary of what was learned in this study, and how this will help other families in the future.

8. If I decide to pull out of this study, which I can do at any time, I will still be able to receive help from the Lakehead Regional Family Centre.

_____ _____

Parent Date

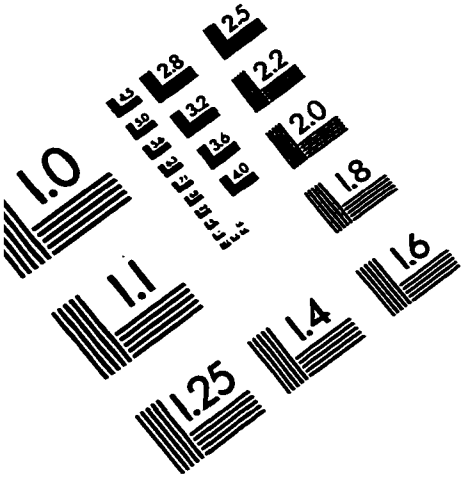
_____ _____

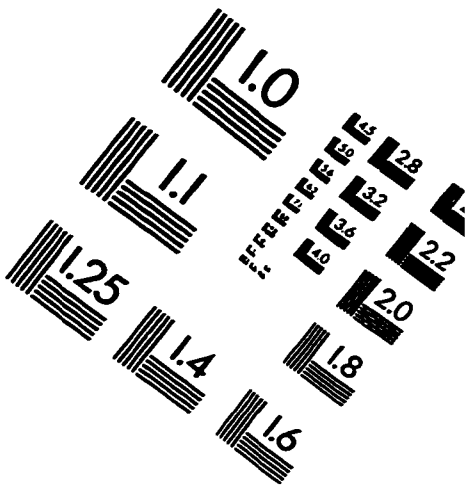
Parent Date

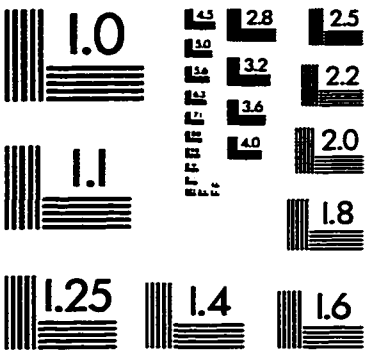
_____ _____

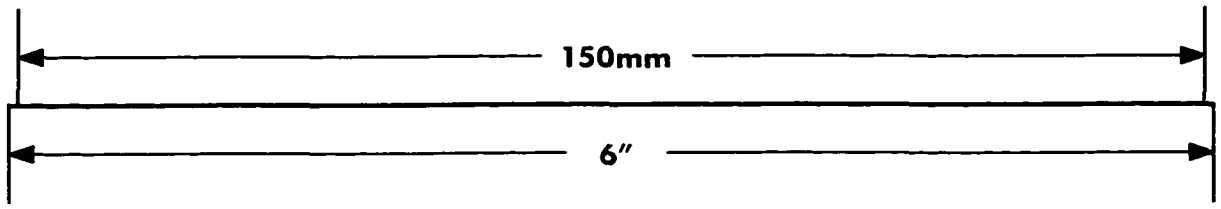
Witness Date

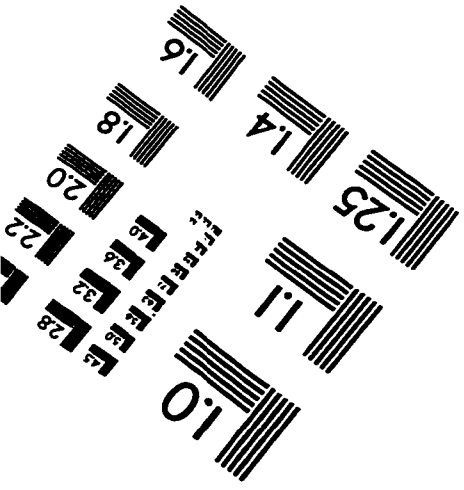
IMAGE EVALUATION TEST TARGET (QA-3)

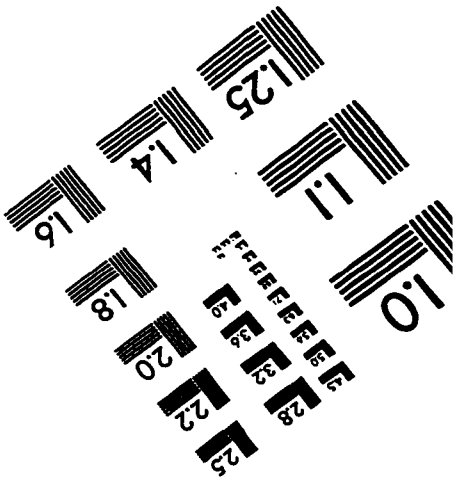












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