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Child Neglect: Its Causes and its Role in Delinquency

Pia Salmelainen

INTRODUCTION

Parenting practices have been shown to be very important in determining whether a young person becomes involved in delinquent or criminal activity. The more interest a parent shows in a child, the more a parent gets involved with a child, the more a parent supervises a child, and the more warmth and affection a parent shows a child, the less likely the child is to become involved in delinquency. These findings suggest that it may be possible to reduce the number of juveniles who become involved in delinquency by developing strategies which address neglectful parenting. In order to do this though, it is helpful to know what factors give rise to neglectful parenting. The aim of this bulletin is to review the available evidence on this issue. The discussion proceeds in three parts. The first part examines some of the important methodological issues which affect the interpretation of research studies in this area. In the second part, research evidence bearing on the relationship between neglectful parenting and juvenile involvement in crime is briefly reviewed. In the third part, findings from recent research studies which have examined risk factors for neglectful parenting and child neglect are reviewed.

METHODOLOGICAL ISSUES IN RESEARCHING CHILD NEGLECT AND JUVENILE DELINQUENCY

RESEARCH DESIGN

To assess whether one factor exerts a causal influence on another factor and gauge the magnitude of its influence, it helps to have three types of evidence (Moser & Kalton 1971). Firstly, it is useful to know the magnitude of the association between the factors under consideration, say factor A (e.g. poor parental supervision) and factor B (e.g. neglect). Secondly, it is useful to know the temporal sequence of the factors. If factor A occurs before factor B, factor B cannot cause factor A. Thirdly, it helps to know that the relationship betweenfactor A and factor B is not the result of a third factor. The ideal way in which to gather this evidence is to conduct an experiment in which all relevant factors other than the one of interest are held constant and the factor of interest is varied to examine its effects. However, like many areas of social science research, for ethical reasons researchers studying child neglect and delinquency are for the most part limited to non-experimental study designs.

The most satisfactory alternative to an experimental study in the area of child neglect and delinquency is a study design called a 'prospective cohort design' (sometimes referred to as a panel design) (Bertolli, Morgenstern & Sorenson 1995). In the ideal prospective cohort design, a large population randomly selected from the community (the 'cohort') would be followed from birth. *All* known and hypothesised risk factors for neglect would be measured at birth and periodically throughout childhood. *All* incidents of child neglect that occurred in the cohort would be identified as they occurred. By following the cohort over time, it would be possible to establish the temporal relationship between risk factors and neglect, and by using statistical techniques, the size of the relationships between risk factors and neglect could be determined, and the influence of other variables on those relationships could also be assessed.

The prospective cohort design is not very commonly used for a variety of reasons. It requires a very large study population because neglect is a relatively uncommon event, and it is difficult to follow up people over long periods of time. Also, there can be ethical difficulties if, for example, persons at high risk of neglect are identified and observed without intervention (Leventhal 1982). In addition to this, there is the problem of not being able to identify and measure all potential risk factors. This issue, of course, is not a problem specific only to cohort designs. In the past when researchers have used the cohort design to examine risk factors for child neglect, they have often followed up children and families for relatively short periods of time, and the research has generally been limited to specific population groups who have a higher than average risk of child neglect, such as very poor families.

The most common study design used to estimate the effects of potential risk factors is the case-control design. Here, researchers typically select a group of individuals who have committed delinquent behaviour/experienced child neglect, and a group of individuals who have not. This latter group is usually referred to as the 'control' or 'comparison' group. Individuals in eachgroup are examined to determine if the factor under study has occurred previously. The factor under study is deemed to be a risk factor if it is significantly more prevalent in the delinquent/neglect group than in the control group. The adequacy of case-control studies is influenced by how well the researcher matches the individuals in the delinquent/neglected group with those in the control group. Valid inferences can

only be made from these studies if individuals in the control group are representative of the population from which the delinquent or neglected individuals came (Bertolli et al. 1995; Leventhal 1982). Subjects are often selected for the control group according to their match with those in the delinquent/neglected group on a number of key variables such as age, gender and family socioeconomic status. Another way researchers can adjust or control for differences between groups of individuals is by using particular statistical methods (Moser & Kalton 1971). It has been a common criticism of case-control studies of child neglect and other maltreatment that they fail to use appropriate control groups (e.g. Widom 1989; Leventhal 1981).

The case-control study design can also be weakened by the method of data collection that is employed. Information about risk factors is usually collected retrospectively in case-control studies. Retrospective data collection often requires a person to recall events which occurred in the past, and this can lead to unreliable information for a number of reasons. For instance, when people are asked to recall events after a long period of time, they are influenced by circumstances which occurred after the events and by their present situation. Also, to avoid being seen as socially undesirable, people may feel compelled to report on their behaviour in favourable terms. This may be particularly so for behaviour such as child neglect and other maltreatment which is generally disapproved of by society (Widom 1989).

The third type of study design used to estimate risk-factor effects in delinquency and child neglect is the cross-sectional design. In cross-sectional studies, respondents are typically surveyed about their current or prior behaviour or experiences which researchers classify as delinquent or neglected. Researchers then look back for possible explanations as to why some individuals became delinquent or experienced neglect while others did not. Because measurements of putative risk factors are obtained after the delinquency or neglect has occurred, it is very difficult to determine cause and effect. The finding of a significant relationship between a so-called risk factor and delinquency/neglect may mean that the 'risk' factor affects the occurrence of delinquency/neglect, or that delinquency/neglect influences the development of the risk factor. Studies which employ a cross-sectional design are also subject to the problems associated with retrospective data collection described earlier for case-control studies (Bertolli et al. 1995; Moser & Kalton 1971).

Another type of design that researchers use is the ecologic design. Unlike the other study designs which customarily use data at the individual or family level, the ecologic design involves the analysis of geographic or regional data such as census tracts and postcode areas. Typically, rates of delinquency/neglect across regions are compared with average levels of the potential risk factors that occur in those regions. Limited conclusions can be drawn from studies which employ this design. Because the analysis occurs at a regional level, for example, inferences about how risk factors differ between individuals and families cannot readily be made (Bertolli et al. 1995). Nevertheless, the ecologic design does provide a valuable guide to researchers as to what factors should be investigated at the individual or family level, without the large cost associated with conducting more in-depth, individual analyses (Zuravin 1986). Furthermore, ecologic analysis is useful in assessing the significance of a particular factor in shaping aggregate rates of child neglect and juvenile delinquency when it has been established by individual-level study designs as an important risk factor for neglect or juvenile delinquency. Just because a particular factor has been shown to cause neglect at the individual level, it doesn't necessarily mean that the level of neglect in a particular region will be due to that factor.

DEFINING NEGLECT, NEGLECTFUL PARENTING AND DELINQUENCY

Neglectful parenting and delinquency can be measured in many different ways, and this is reflected in the research literature on neglect and delinquency. Neglect has been examined in terms of cases of neglect reported to or substantiated by child protection agencies, standards determined by clinicians and/or caseworkers, adolescent perceptions of parental behaviour, and parental reports of their own behaviour. Similarly, delinquency has been examined in terms of self-reported involvement in specific deviant acts (ranging from acts of truancy and drug use through to crimes of assault and homicide) which are sometimes measured on specially developed scales such as the Self-Reported Early Delinquency inventory (Henry, Moffitt, Robins, Earls & Silva 1993), the Australian Self-Reported Delinquency Scale (Mak 1994) and the National Youth Survey Delinquency Scales (see, for example, Elliott, Huizinga & Menard 1989). Delinquency has also been measured in terms of police contacts and arrests for offending. The high variability in definitions of neglect and delinquency that exist in the literature impedes comparisons across studies. These limitations can be further complicated by the fact that many studies group different forms of behaviour together. Often neglect is grouped together with other forms of child maltreatment, while in the case of delinquency, very trivial acts are often grouped with more serious crimes. The practice of grouping can be very problematic for neglect because the risk factors for neglect are not necessarily the same as those for other forms of maltreatment (Jones & McCurdy 1992; Watters, White, Parry, Caplan & Bates 1986; Martin & Walters 1982).

The research studies reviewed in this bulletin employ different measures and definitions of neglect, but they are all concerned with examining some failure on behalf of the child's caretaker (usually the parent) to provide conditions essential to a child's healthy development. Neglect, for the purposes of the bulletin, includes serious acts of omission or commission which lead parents and other caregivers to be reported to child protection agencies, as well as other parental behaviours such as poor supervision of children, a lack of interest or involvement with children, rejection of children, and a failure to be emotionally responsive to children. Studies which examine maltreatment in a broad sense, rather than neglect specifically, have generally not been included in this bulletin. The studies of delinquency which are reviewed in the bulletin are not restricted to any one type or measure of delinquency.

STUDY POPULATIONS

Just as researchers have employed different definitions of neglect and delinquency, they have examined different population groups or samples of people. Subjects in neglect research have been drawn from child protection agencies, hospitals and other clinical settings, schools, employment and parenting programs, and specific types of communities such as those with low socioeconomic status. In delinquency research, subjects have also been drawn from some of these populations, as well as from police records and juvenile detention centres. The type of population that is studied influences how a study's findings should be interpreted and used. If a study uses a specific population group, say children of parents

who attend a child care program, the results from that study may only be generalised to the population from which the study population was drawn, that is, to children whose parents attend child care programs. Even then, the results can only be generalised in this way if the study population is representative of the population from which it was drawn in the first place (Kinard 1994). The present review has not been restricted to studies involving only one type of population. The research presented concerns a variety of study populations, including children and adolescents.

Studies of child neglect have been criticised for using weak sampling techniques, such as using samples which are selected for convenience or opportunity (Widom 1989). By selecting subjects in a discretionary manner, researchers produce studies which offer little predictive power and therefore have very limited use. Studies which have used these sorts of inappropriate sampling techniques have generally been excluded from the present review.

THE LINK BETWEEN NEGLECTFUL PARENTING AND JUVENILE DELINQUENCY

A range of factors have been demonstrated to influence the involvement of juveniles in crime. These factors have included drug use (e.g. Dembo, Williams, Schmeidler, Wish, Getreu & Berry 1991; Elliott et al. 1989), schooling and academic performance (see review by Maguin & Loeber 1996), family influences (see review by Loeber & Stouthamer-Loeber 1986), and peer influence (e.g. Nee 1993; Leung & Lau 1989). However, the most important factors are family factors, especially factors associated with parenting behaviour and styles.

A decade ago, Loeber and Stouthamer-Loeber (1986) conducted a meta-analysis of concurrent and longitudinal studies on the relation of family factors to juvenile delinquency and conduct problems. Numerous family-related factors were examined, including parental involvement with children, parental supervision, parental discipline, parental rejection of their children, child's rejection of the parent, parental criminality and aggression, marital relations, and parental absence. From their analysis, Loeber and Stouthamer-Loeber concluded that some factors were more powerful predictors of juvenile conduct problems and delinquency than others. The most powerful predictors were reported to be level of parental supervision, parental rejection, child's rejection of the parent, and parent-child involvement. Juvenile delinquency and conduct problems were associated with parenting styles characterised by parents who did not go on outings with their children, who showed indifference and little affection toward their children, and who often were unaware of their children's whereabouts.

The conclusions reached by Loeber and Stouthamer-Loeber (1986) have subsequently been confirmed by other researchers. Using data from the National Youth Study of 1972, Weintraub and Gold (1991) examined whether parental supervision influences the level of self-reported delinquent behaviour among a representative sample of 1,395 11 to 18 year old Americans. Their analysis indicated that there is a relationship between level of parental supervision and delinquency. However, this relationship is qualified by the age and gender of the adolescent. They found lower levels of parental supervision associated with greater delinquency, particularly among boys and especially those in the age group 13 to 16 years. These effects were observed even after taking into account the delinquency of their friends, the presence of parents and the degree of maternal and paternal affection shown. Reporting on the effects of parental supervision and affection, Weintraub and Gold indicated that delinquency tended to be lower when both supervision and affection were relatively high.

Barnes and Farrell (1992) examined the relationship between parenting practices and delinquency and other adolescent problem behaviours using data from interviews conducted with a representative household sample of 699 American families with adolescent children from New York and its surrounding areas. They found that parental support (i.e. behaviours toward adolescents that indicate they are valued, accepted, and loved) and parental monitoring (i.e. children informing parents of their whereabouts, and parents knowing of the whereabouts of their children) were important predictors of adolescent drug-taking behaviour, deviance (e.g. arguing with parents, assaulting others, running away from home) and school misconduct. These factors remained important predictors even after taking into account age, gender, race and socioeconomic status of the adolescent; family structure; and family history of alcohol abuse.

In their cross-sectional study of 263 students attending an American high school, Burton, Cullen, Evans, Dunaway, Kethineni and Payne (1995) tested whether 'indirect parental controls' (the extent to which youths are affectively attached or close to their parents) or 'direct parental controls' (whether youths perceive that their parents exercise control over their misconduct, such as by imposing sanctions and monitoring their behaviour) lessen delinquency. Delinquency was measured on a number of scales including a general scale (a mixture of minor and serious offences), a drug use scale, and a felony scale (serious offences). In their analysis, Burton et al. controlled for sociodemographic variables (the students' gender and race, their parents' economic status), the criminality of their parents and friends, and a number of social control variables (attachment to teachers and friends, and social bonds such as respect for police). For the boys in the sample, direct control was significantly related to the prevalence and incidence of general delinquency and the incidence of drug use. In the case of girls, direct control was only related to the prevalence of drug use. Indirect control or parental attachment was not related to any measures of delinquency for either boys or girls. The authors suggested that these findings may be related to the age of the students who were, on average, aged 16 years. As youths move from early to late adolescence, the effects of parental attachment weaken. Hence, for the present sample, the parents may no longer have exerted their influence through their attachment with their children but through direct controls.

The role of poor parent-child attachment in the development of delinquency has been investigated by others (e.g. Rankin & Kern 1994; Lauritsen 1993; Krohn, Stern, Thornberry & Jang 1992; Simons, Robertson & Downs 1989; Peterson & Zill 1986). Simons et al. (1989) conducted a panel design study involving about 300 adolescents from an American city to examine the relationship between parental rejection (as measured by parental concern, interest, and support) and delinquency. The authors wanted to determine whether parental rejection leads to delinquency, or whether delinquency contributes to parental rejection. Data were collected from adolescents recruited from drug/alcohol programs, as well as a randomly selected sample from the community, at two points in time, 12 months apart. The researchers found a significant relationship between parental rejection and self-reported delinquency at each point in time, even after taking into account a number of control factors, namely family conflict, parental control,

family religiosity, and family organisation.[1] Moreover, when they examined the temporal relationship between parental rejection and delinquency, the results suggested that, predominantly, parental rejection leads to delinquency rather than vice versa. Furthermore, the impact of the two variables on each other appears to be synchronous rather than delayed. In other words, a child's current behaviour is influenced by a parent's current rejecting practices rather than by a parent's previous rejecting practices.[2]

Johnson, Su, Gerstein, Shin and Hoffmann (1995) used data from the High Risk Youth Study, a study of 601 families from an American midwestern city, to examine the effects of parental support and psychopathology on juvenile delinquency. They were also interested in determining whether the effect of these factors on delinquency may be attributable to variations in income levels. In the study, their measure of support concerned the extent to which adolescents and parents openly communicated and interacted, and delinquency included a range of deviant behaviours, such as skipping school, drug-taking, and criminal offences. From their results, Johnson et al. concluded that relatively low support (fewer than two supportive parents) increased the risk of adolescent deviant behaviour, and the risk was amplified if one or more parents had a chronic mental disorder. They also concluded that the deleterious effects of parental psychopathology and low parental support were not significantly different for high-income and low-income families, despite the fact that a high household income was associated with a lower risk of delinquency in their sample.

McCord (1983) reported findings from an American longitudinal study of boys reared in 232 families prior to World War 2 in eastern Massachusetts. Juvenile delinquency rates among boys who had been raised by parents classified as 'neglectful', 'rejecting', 'abusive', or 'loving' were compared. Parents in the 'rejecting' group displayed repeated displeasure with their sons, while 'loving' parents were described as being genuinely concerned for the welfare of their sons. 'Neglectful' parents tended to show little emotional attachment toward their sons. McCord reported that the highest rates of delinquency occurred in the 'rejecting' group, with about half of the rejected boys having juvenile criminal court convictions compared with a conviction rate of 11 per cent for the 'loved' boys. A relatively high proportion of boys in the 'neglected' group also had juvenile convictions (23%). In McCord's study, 'control' variables, as such, were not considered in the analysis of delinquency rates. However, a few characteristics of the groups relevant to the issue of juvenile offending were examined. It was reported that no significant differences existed between the groups of boys according to the proportion who had a low socioeconomic status or the proportion who were reared in broken homes. However, boys in the 'rejected' group were more likely to have an alcoholic or criminal father than boys in the 'loved' group. This last difference, at least in part, may have been responsible for the observed higher delinquency rates among the rejected children.

In a study of 793 Canberra (Australia) high school students, Mak (1994) examined the relationship between delinquency, and paternal and maternal neglect and rejection. The measure of parental neglect and rejection used in the study indicated the extent to which adolescents perceived their parents as warm and understanding, while delinquency was measured using a self-report scale of minor deviant acts (such as cheating and alcohol use) and more serious offences (such as theft and assault). Results indicated that both maternal and paternal neglect and rejection were significantly associated with delinquency, even after taking into account a number of delinquency-related variables, namely the adolescent's gender, the father's level of education, the intactness of the home, and parental control (the extent to which parents allowed their children to be independent and autonomous).

Some research has addressed the link between childhood maltreatment and later involvement in delinquency (e.g. Smith & Thornberry 1995; Zingraff, Leiter, Myers & Johnson 1993). Using a group of some 1,000 children from the Rochester Youth Development Study, Smith and Thornberry (1995) identified which children had been the subject of maltreatment prior to age 12. Maltreatment was assessed using child protection services records and included physical or sexual abuse; emotional, moral/legal or educational maltreatment; physical neglect; and lack of supervision. Measures of delinquency were based on self-reports of offending and police arrests covering a four and a half year period from when the children were at least 12 years of age. The analysis of the data revealed a significant relationship between several measures of delinquency and maltreatment. Maltreatment increased the likelihood of official delinquency, as well as self-reported moderate delinquency (including such acts as joyriding and simple assault) and violent delinquency. It did not increase the likelihood of self-reported minor delinquency (including such acts as minor theft and rowdy behaviour in a public place) or serious delinquency (including serious acts such as armed robbery and burglary). These relationships were maintained after controls for race/ethnicity, sex, socioeconomic status, and family structure were instituted.

A small number of studies have attempted to investigate *why* it is that parental neglect leads to juvenile delinquency. Simons and his colleagues have shown that parental practices influence juvenile involvement in delinquent behaviour by increasing the likelihood that adolescents will associate with deviant juveniles (Simons, Whitbeck, Conger & Conger 1991; Simons & Robertson 1989). Two reasons have been proposed as to why children of neglecting and rejecting parents may become involved with deviant peers. Firstly, when parents fail to adequately monitor or supervise their children, access to deviant adolescents increases. Secondly, parents who display rejecting behaviour do not create the conditions which are necessary to transmit those values to their children which make participation in a deviant group unattractive or costly.

FACTORS LEADING TO CHILD NEGLECT

Based on the available research literature, risk factors for child neglect can be organised into three broad categories. The first category concerns social and economic conditions in a community. The second category includes factors associated with the family in which the neglectful parent and neglected child belong. This category includes factors that impact on family functioning and includes structural factors, such as family size, as well as social factors, such as family conflict. The third category concerns the personal characteristics of the caretakers of neglected children (primarily parents), as well as characteristics of the children themselves.

SOCIOECONOMIC CIRCUMSTANCES

Economic hardship

The involvement of economic hardship in child maltreatment has received considerable attention in the research literature. A variety of studies have been conducted to examine the role of these factors. Ecological studies have been quite popular, largely because indicators of regional economic hardship, such as low income and unemployment, are usually readily available, often in the form of census data.

In their study of urban neighbourhoods in Cleveland, America, Coulton, Korbin, Su and Chow (1995) examined the relationship between rates of officially reported maltreatment (mainly neglect) and community impoverishment, that is, the level of economic and residential disadvantage in the community. The analysis took into account other community characteristics, namely the level of child care burden (i.e. the amount of adult supervision and resources which may be available for children in the neighbourhood) and residential stability (i.e. the degree of movement of residents in the neighbourhood). Not only was impoverishment found to be a significant predictor, but it was the strongest predictor of child maltreatment of those considered.

Krishnan & Morrison (1995) analysed the relationship between the level of child maltreatment and the rate of unemployment in the province of Alberta in Canada. They controlled for a number of socioeconomic and demographic correlates of maltreatment, namely the level of native population, the rate of population growth, the percentage of population aged 0 to 19 years, female labour force participation, the percentage of single parent families, and the availability of social services resources. A higher level of unemployment was found to be associated with a higher incidence of child maltreatment, and, unemployment emerged as the best predictor of the maltreatment rate of all the variables examined.

Young and Gately's (1988) study of the city of El Paso in Texas, America, also looked at the relationship between unemployment rates and child maltreatment rates across neighbourhoods, but it examined rates of maltreatment separately for female and male perpetrators. Controlling for the percentage of female-headed households, female labour force participation and residential mobility (percentage of residents who move within a given period), Young and Gately found that the unemployment rate was only related to the rate of maltreatment for male perpetrators. With both this study and the Krishnan and Morrison (1995) study, it is difficult to determine how applicable the findings are to child neglect given that they are concerned with overall rates of maltreatment. Very few ecological studies have examined the relationship between economic hardship and neglect specifically.

Using postcode area information for Sydney (Australia), Young, Baker and Monnone (1989) examined the relationship between reports of child neglect (confirmed by child protection agencies) and family income. Family income was measured in terms of the percentage of families in a postcode area whose annual gross income was less than $15,000. They found a significant relationship between family income and the number of confirmed cases of neglect, even after taking into account the number of children living in the postcode areas. Furthermore, when they compared the *rate* of child neglect in the 23 postcode areas with the highest and lowest percentages of families with income less than $15,000, they found that the rate of neglect was almost 11 times greater in the 'lowest' income areas than the 'highest' income areas.

Spearly and Lauderdale (1983) also reported a significant relationship between family income and rates of reported neglect across counties in the State of Texas, America. The greater the percentage of families with annual incomes over $15,000, the lower the county neglect rate. This effect was significant after a number of factors were taken into account, namely labour force participation of married women with children less than six years of age, residential mobility, the availability of income support, and the percentage of female-headed households with children. In their analysis, Spearly and Lauderdale also included a variable concerning the percentage of families who had an income of less than $8,000. It was not found to be significantly related to the rate of neglect, prompting the authors to suggest that poverty per se may not be the important factor for neglect in a community; rather, it is the stress and the inability of families to lend material aid to others due to insufficient resources which is important.

It has been suggested that associations between economic hardship and child neglect are due to selection bias. Because poorer families are more involved with public agencies than wealthier families, they are more likely to be scrutinised more carefully and therefore more likely to be officially viewed as neglecters. There are two lines of evidence which run counter to this interpretation. The first line of evidence stems from ecological studies which show that the relationship between economic stress and neglect holds up even in the lowest income groups where, presumably, there is little or no difference in the level of official scrutiny. The second line of evidence stems from individual-level studies which show that economic stress actually disrupts the parent-child relationship.

The notion that the relationship between economic hardship and child maltreatment is largely a product of selection bias has been investigated in Australia by Vinson, Berreen and McArthur (1989) using data concerning 3,851 cases of physical abuse notified to the NSW Department of Family and Community Services.[3] They compared the rate of physical abuse notifications for the most socioeconomically disadvantaged four per cent of the population of cases with the rate for the six per cent of the population of cases ranked immediately above.[4] The rate for the most disadvantaged group of cases was found to be two times higher than the rate for the next most disadvantaged group. While this study concerns abuse rather than neglect, there is little reason to believe that the situation would be dissimilar for neglect. Indeed, findings from an American study by Giovannoni and Billingsley (1970) lend support to this belief. They compared the characteristics of poor families who were neglectful (58 families), potentially neglectful (55 families) and adequate (73 families) in their child rearing.[5] Even though all of the families in the study were poor, there was a greater incidence of extreme poverty among the neglectful families.

At the individual level, Sampson and Laub (1994) looked at the link between family poverty and parenting styles using a sample comprising 500 school boys and 500 institutionalised delinquent boys aged 10 to 17 years who were raised in low-income neighbourhoods in Boston, America, during the Great Depression era. The parenting factors examined were maternal supervision, parental rejection and parent-child attachment. They found that family poverty (derived from the family's average weekly income and its reliance on outside aid) was significantly related to the degree of attachment between a parent and child, even after taking into account a range of factors. The factors they controlled for were family size, family disruption, residential mobility, parental mental health, parental deviance (a composite

measure of alcoholism and criminality), maternal employment and childhood behavioural problems. When controls were instituted in the analysis, they did not observe a significant relationship between family poverty and the level of supervision by the mother. Sampson and Laub (1994) subsequently examined the relationship between family poverty, parenting styles and delinquency.[6] In their analysis they employed a measure of parenting called 'informal social control' which reflected the level of parent-child attachment, the level of maternal supervision, and the degree to which parents used erratic or harsh discipline. Results indicated that informal social control by parents was related to delinquency, and it was through this relationship that family poverty influenced delinquency. Poverty, Sampson and Laub (1994) suggested, somehow inhibited the capacity of families to achieve informal social control, and this, in turn, increased the likelihood of a child being delinquent.

A similar type of study has been conducted by Larzelere and Patterson (1990). They were interested in knowing whether a relationship exists between juvenile delinquency and a family's socioeconomic status, after the level of parent management skill in that family has been taken into account. To test this hypothesis they used longitudinal data from the Oregon Youth Study. The study sample comprised 206 boys from elementary schools located in high crime rate areas. The boys predominantly came from lower- and working-class families. Data for the sample were collected at three different times: a measure of their parents' socioeconomic status was collected when the boys were in fourth grade, a measure of parental management skill (including both parental supervision and discipline) was collected when the boys were in sixth grade, and two measures of delinquency (charges by police and self-reported offending) were obtained during the boys' seventh grade at school when they were about 13 years of age. Statistical techniques[7] were used to analyse causal relationships between these measures, and the results obtained supported the hypothesis. The effects of socioeconomic status on delinquency did appear to be mediated through parental management practices. Interpreting this finding, Larzelere and Patterson suggested that parents with lower socioeconomic status may experience greater stress levels and fewer resources, which may hinder the adequacy of their parenting skills. This issue has been considered by several other researchers.

Conger, Conger, Elder, Lorenz, Simons and Whitbeck (1992) investigated the role of family processes in linking economic problems to adjustment in 12 to 14 year old American school boys. From interviews with 205 families, they collected information on objective economic conditions, such as unstable work and family per capita income, as well as parents' experiences of financial difficulty and emotional distress. Measures of parenting practices (including the extent to which parents were involved and nurturing in their parenting style) and adolescent behaviour (including school performance, peer relations, self-confidence, antisocial behaviour, depression and hostility) were also obtained. Using path analysis statistical techniques, they found that difficult economic conditions lead to emotional distress in parents through the financial pressures they create. This negative emotional state directly affects the parents' capacity to be nurturing and involved with their sons. In turn, sons experience adjustment problems including antisocial behaviour, depression and hostility.

Similar findings were obtained by Lempers, Clark-Lempers and Simons (1989) in their cross-sectional study of 622 male and female secondary school students in a midwestern American community. Lempers et al. examined the relationship between adolescent perceptions of family economic hardship, their perceptions of parenting style, and experiences of loneliness, depression, delinquency and drug use. For both boys and girls, economic hardship increased depression and loneliness in adolescents by decreasing parental nurturance and increasing inconsistent and rejecting parenting. Similarly, economic hardship influenced the frequency of delinquent and drug-using behaviours among adolescents by affecting the extent to which parents were inconsistent and rejecting.

Using data from the Berlin Youth Longitudinal Study, Silbereisen, Walper and Albrecht (1990) looked at the effects of income loss on family relations and adolescents' proneness to problem behaviour. Based on a sample of 134 families, they found that income loss affected the well-being of mothers and fathers which, in turn, influenced the degree of friction or harmony (i.e. integration) in a family. Furthermore, it was reported that the degree of integration in a family influenced the willingness of adolescents in the family to break norms and rules of conduct. It did this by affecting the extent to which adolescents were sensitive to evaluations others made of them.[8] This finding is in line with other researchers' observations that neglectful parenting practices lead to juvenile delinquency via peer influence (e.g. Simons & Robertson 1989; see earlier discussion).

Recently, Harris and Marmer (1996) reported on a study which investigated the extent to which parental emotional involvement (i.e. the extent to which parents are close to their children and show their children affection) and behavioural involvement (i.e. the extent to which parents do things with their children and are supportive of their children) vary across family income levels. They used data concerning 748 children from the American National Survey of Children, a panel study of a nationally representative sample of children. Information collected from two-parent families in 1976 and 1981 was used to categorise families into three groups according to their poverty status: those who had never been poor, those who had experienced temporary poverty, and those who experienced persistent poverty. Families were also classified according to whether they had received welfare. Harris and Marmer found that family poverty status and parental involvement were related. Fathers in poor families were less emotionally and behaviourally involved with their children than other fathers, and the greater the persistence of poverty, the less they were involved. Similarly, fathers who received welfare were less involved than those who did not. Levels of maternal behavioural or emotional involvement did not vary with family poverty status, nor were there any significant differences between mothers who received welfare and those who did not in terms of the level of emotional involvement displayed. However, mothers who received welfare were less behaviourally involved with their children than those who did not receive welfare.

Harris and Marmer extended their analysis to consider the effects of parental involvement, within the poverty and welfare experiences, on juvenile delinquency. After controlling for the child's age, race and gender; the mother and father's education level; and urbanicity (a measure of the rural-urban context and population density of the family's residence which controls for the differential location of poor and welfare families) they found that parental emotional involvement and delinquency were related in some circumstances. In persistently poor families, greater emotional involvement by fathers reduced the likelihood of delinquent behaviour among children. The

emotional bond between mother and child appeared to deter delinquency in families who were never poor, and those who hadn't received welfare. Seemingly in contrast to these findings, greater behavioural involvement on the part of the mother was associated with delinquency in families who received welfare. Interpreting these findings, Harris and Marmer suggested that mothers may increase their time and interactions with their children when they exhibit problematic behaviour.

McLoyd and Wilson (1990) examined the effects of economic conditions on parenting among a group of 154 single mothers living in a midwestern city in America. From questions about the mothers' ability to pay bills and their purchasing patterns, the authors derived a measure of economic hardship. A significant link was found between degree of economic hardship experienced and psychological well-being. Mothers who experienced greater economic hardship reported greater levels of distress than those who had fewer economic difficulties. Furthermore, mothers who experienced more negative emotional states perceived their parenting roles as more difficult and were less nurturing of their children than mothers who were less distressed.

Housing adequacy

An association between housing problems and neglect might be expected for a number of reasons, not the least of which is that housing which is inadequate, unsanitary and crowded may impact on child care through its effects on stress levels in parents and families. Zuravin (1985) conducted a review of studies examining the relationship between housing and child maltreatment and concluded that there is in fact some tentative evidence for a link between individual occurrences of child neglect and housing problems. Since this review, research supporting a link between neglect and housing has been mixed, but largely negative.

In an ecological study, Zuravin (1986) examined the relationship between residential density and child neglect for census tracts in Baltimore, America. Residential density was measured in terms of the percentage of households with 1.51 or more persons per room, while neglect was measured in terms of the rate of officially reported neglect. Zuravin found that density was associated with neglect, even after controlling for social class and ethnicity.

Chaffin, Kelleher and Hollenberg (1996) considered the effect of household size in their prospective study of risk factors of neglect. Based on information collected from a large community-based sample of 7,103 parents from different sites across America[9], they found that the number of people living in a household affects the likelihood of child neglect. (Parents were classified as neglectful or otherwise based on their responses to questions about their child care behaviour.) However, they also found a number of demographic and health characteristics of the parents to be significantly associated with the risk of child neglect. When these factors were controlled for, household crowding failed to be a significant predictor of neglect.

Similar results have been reported by Sampson and Laub (1993). In their study involving 1,000 adolescent (delinquent and non-delinquent) boys, they did not find a significant relationship between household crowding and the parenting behaviours they examined (parental rejection, maternal supervision, parent-child attachment) after they controlled for family size, socioeconomic status and disruption; residential mobility; childhood behavioural problems; mother's employment status; parental alcoholism and criminality; and whether parents were foreign born.

Social support networks

Social support is said to act as a stress buffer for parents, especially for parents who largely care for children on their own because they are single parents or because of their partner's work commitments (Belsky 1993; Cotterell 1986). Social support apparently functions in several ways (Belsky 1993). It provides emotional support which concerns the provision of love and interpersonal acceptance to the parent. It provides instrumental assistance which can take a variety of forms including the provision of information, advice, and help with routine tasks such as child care. It also provides social expectations which serve as guides as to what is and what isn't appropriate parenting behaviour. The level of social support a parent enjoys is affected by the extent of his or her social network, that is, the range of family members, friends, and neighbours who can be relied upon to provide social support. There is strong research evidence to suggest that the presence of a rich social network functions as a protective factor for child neglect.

Coohey (1996) compared the social networks of a group of 69 low-income mothers who had been classified by child protection services in Chicago as neglectful with those of a group of 150 mothers from the community who were not neglectful. The groups were matched on a number of demographic characteristics, namely poverty level, number of children, and the mother's race and age, but the two groups differed in respect to their education (fewer neglectful mothers had completed high school) and their living arrangements (more neglectful mothers lived alone without another adult). Coohey's examination of the social networks revealed that the two groups differed significantly in a number of ways. Structurally the networks were different, with neglectful mothers having fewer network members, fewer contacts with those network members, and being in less proximity to network members than mothers who did not neglect their children. Compared with mothers who weren't neglectful, neglectful mothers also reported that they had fewer network members who really listened, who helped with making decisions, or who provided companionship, and fewer network members who helped with babysitting and household chores. Some of these findings may, at least in part, reflect the differences between the groups in terms of living arrangements and educational level.

Similar findings to these have been reported by Gaudin, Polansky, Kilpatrick and Shilton (1993) in their study of families in counties of Georgia, America. Gaudin et al. (1993) compared a group of officially neglectful families (102 families) with a group of families who did not neglect their children (103 families). The groups were composed predominantly of low-income, single-parent families receiving welfare. The groups also had a similar racial profile, but differed according to the number of children in the family (higher number in the neglectful group), and the level of education of the primary caregiver (lower education in the neglectful group). Like Coohey (1996), Gaudin et al. (1993) found that the groups had significantly different social network characteristics. The primary caregivers from the neglectful families reported a smaller number of network members, less emotional support from their network, and less tangible aid, advice and guidance from their network, than the primary caregivers of families who were not neglectful. They also reported higher levels of loneliness and depression than non-neglectful caregivers which appeared to be due to the characteristics of their social networks.

In a cross-sectional study of 96 families

living in four geographically isolated towns in Queensland, Cotterell (1986) investigated whether women who lack broad social network support experience difficulties in providing a stimulating and responsive home environment for their children. He found that the practical information a mother received from her social network significantly affected the quality of her child rearing expectations and behaviours, even after controlling for a number of other factors (the mother's age and education level, the child's gender, the extent to which fathers were regularly absent from home due to their work, residential mobility in the community, and the percentage of older people in the community). When mothers received a relatively small amount of informational support, the quality of their child rearing was poorer than when mothers received a relatively large amount of support.

Young and Gately (1988) attempted to investigate the importance of social support using an ecological design. Focussing on neighbourhoods in the city of El Paso, America, they examined the relationship between rates of child maltreatment and four socioeconomic variables: percentage unemployed, percentage of households headed by females, percentage of females in the labour force, and percentage of residents who moved to the neighbourhood within the last five years. They argued that the employment variable measured drain on both material and psychological resources in the neighbourhood, that the percentage of female-headed households reflected the level of emotional and financial burdens on women, that the percentage of females in the labour force indicated the extent to which women have direct access to economic resources, and that the mobility variable measured the level of disruption in social networks. Overall, only the mobility variable was found to be significantly related to the rate of child maltreatment. However, when they examined the rates separately for male and female perpetrators, they found several of the social support variables to be significantly related to rates of maltreatment. For female perpetrators, all but unemployment were significant, while for male perpetrators, all but the mobility variable were significant. Based on these findings, Young and Gately suggested that support which is important to women, might be of a somewhat different nature to that which is important to men. For females, the recent arrival of large numbers of residents is not conducive to the formation of strong social networks that are critical in mitigating maltreatment, while for males, maltreatment is particularly related to general socioeconomic stress associated with high unemployment.

Coulton et al.'s (1995) cross-sectional study of neighbourhoods in Cleveland, discussed earlier, also addressed issues of social organisation and their relevance to child maltreatment rates. They observed that both the level of child care burden and the degree of residential stability in a neighbourhood were significantly related to the level of child maltreatment (mainly neglect). These relationships held even after the level of impoverishment in the neighbourhood had been taken into account.

Residential mobility was considered by Sampson and Laub (1993) in their individual-level study of parenting behaviours toward adolescent boys. Their analysis revealed that higher levels of residential mobility were associated with less effective maternal supervision, poorer parent-child attachment, and increased parental rejection. These associations were significant after other family-, parent-, and child-related factors were controlled for.

Neighbourhoods characterised by weak neighbour ties and weak social integration have been studied by Garbarino and Sherman (1980). They compared two American neighbourhoods with a similar socioeconomic and racial profile but with different rates of maltreatment (including neglect and abuse). Mothers from the neighbourhood that had the lower rate of maltreatment were more likely to exchange child supervision and make more use of the neighbourhood children as playmates for their own children than mothers from the neighbourhood with the higher rate of maltreatment. Mothers in the low-risk neighbourhood also reported less stress than mothers in the high-risk neighbourhood, and were more likely to rate their neighbourhood as a better place to raise children.

Rohner and Rohner (1980) identified correlates of parental rejection, which appear to be common worldwide, by reanalysing data extracted from ethnographic reports representing different cultural systems of the world. Social support was included in their set of correlates of parental rejection. It seems that mothers (or caretakers) the world over are more likely to reject their children if they are unable to get away from them from time to time, at least briefly. If a mother is socially isolated with her children, she is apt to become frustrated. Thus, household composition becomes a significant factor in predicting parental warmth or rejection. In households where an alternate caretaker is available to help with child care, such as a father or a grandparent, there is more likely to be warmth and affection than in households where the parent is not given any child care relief.

FAMILY CHARACTERISTICS

Evidence from studies which have examined family functioning suggest that families with neglectful parents operate somewhat differently from families in which parents are not neglectful. In a case-control study, Gaudin, Polansky, Kilpatrick and Shilton (1996) compared family functioning in a group of 103 families who were confirmed as neglectful by protection authorities with a group of 102 non-neglectful families recruited through government welfare programs. The groups were matched on race, family income (predominantly low), family structure (predominantly single parent), mother's age, and welfare status (predominantly receiving aid). The neglect group, however, differed from the comparison group in that it averaged a greater number of children per household and the primary caregiver concerned averaged a lower educational level. When Gaudin et al. (1996) compared the groups in terms of their family functioning they found several differences. In particular, the neglectful families appeared to be less organised, more chaotic, and less verbally expressive than non-neglectful families. It is possible that these differences were, at least in part, due to the characteristics that the groups were not matched on, that is, the average number of children in the household and the educational level of the mother. Indeed, as discussed later, both of these characteristics have been shown to be significant predictors of neglectful parenting.

The level of conflict between parents may also impact on parenting styles. In the cross-sectional study of adolescent boys by Conger et al. (1992), described earlier, the role of marital conflict in nurturing and involved parenting was investigated. The study indicated that marital conflict, brought about by parents' reactions to difficult economic circumstances, directly influences the nurturing and involved parenting style of each parent. Parents become less nurturing and involved when marital conflict escalates. As mentioned earlier,

Conger et al. observed that disruptions to parenting had adverse consequences for adolescent development.

The quality of the marital relationship and its role in neglect has been examined by Lacharite, Ethier and Couture (1996) in their case-control study of two-parent families in Quebec, Canada. They compared 24 families who received treatment for child neglect with 24 families who were not substantiated by child protection services as being neglectful. Each family had at least one child under the age of 7 (the 'target' child). The groups of families were similar on a number of dimensions: the age and gender of the target child, socioeconomic status of the family, age and educational level of the mother, age of the mother's partner, whether the mother's partner was the biological
father of the target child, and the duration of the mother-partner relationship. Lacharite et al. obtained a measure of the quality of the marital relationship for each family which reflected the extent to which mothers felt loved and supported by their partners, and whether they perceived that the target child had negatively influenced the marital relationship. They also asked mothers whether violence had occurred in their marital relationship. Compared with non-neglectful mothers, neglectful mothers perceived their partners as being less adequate and were more likely to report that violence had occurred. However, Lacharite et al. also observed that the neglectful mothers were more likely to be dissatisfied with their children and experience more problems in managing their children's behaviour. It is likely that these experiences also played a role in the neglectful behaviour displayed by these mothers.

Researchers have also attempted to examine whether structural aspects of families are related to child neglect. The number of children in a family appears to be one important structural aspect. Benasich and Brooks-Gunn (1996) in America conducted a prospective study of 608 pre-term, low birthweight infants. For these infants, data were collected at birth and at yearly intervals for three years after birth. It was found that the greater the number of children in the household at the time of the birth, the poorer the quality of stimulation and support available to the child in the home at age three. This result held even after taking into account the mother's age, race and level of education; household income; and the child's gender, birthweight and health status.

In another American prospective study, Brayden, Altemeier, Tucker, Dietrich and Vietze (1992) analysed data concerning 1,376 mothers with newborns. The mothers were followed up for a period of 18 months after the birth of their child and, using reports to official authorities, they identified which mothers became neglectful. Their analysis revealed that neglectful mothers could be distinguished from non-neglectful mothers by the number of children they had who were aged less than six years. Neglectful mothers had, on average, significantly more children than non-neglectful mothers. It is possible that this relationship may have been due to other differences between the neglectful and non-neglectful mothers. Compared with non-neglectful mothers, neglectful mothers had poorer parenting skills, they reported less social support, proportionately fewer had completed high school, and their children appeared to have experienced poorer development. However, Brayden et al. did not find any differences between the groups according to their age, race, marital status, the experience of familial drug problems, undesired pregnancy, recent parental imprisonment, and residential mobility.

Zuravin and DiBlasio (1996) examined correlates of neglect in their study of low-income adolescent mothers from Baltimore. They compared 22 single mothers who had been reported to child protection services for their neglectful parenting and 119 single mothers who had never been reported for neglect but were receiving financial aid from the government. Zuravin and DiBlasio considered numerous variables in their analysis, namely: the background of the adolescent mother (including her own maltreatment, the quality of attachment to her primary caregiver, level of poverty, intactness of her family, emotional problems of her mother, whether she'd run away from home, trouble with the law), her preference for being alone, her level of education, the number of livebirths she had experienced, her age at first livebirth, whether she had had an abortion or miscarriage prior to her first livebirth, whether the first livebirth had been planned, whether she had experienced postnatal depression, and whether her first child was premature or of low birthweight. The number of children the mother had given birth to emerged as a significant predictor of neglect and was the most powerful predictor of all the factors examined.

In their study of delinquent and non-delinquent boys, Sampson and Laub (1993) also reported that the number of children in a family is related to maternal supervision. They found that a greater number of children was associated with less effective monitoring of boys by their mothers. This relationship was significant even after taking into account family, parent and child characteristics. The number of children in the family, however, did not appear to be related to parental rejection of children or the level of attachment between parents and children when other factors were controlled for.

INDIVIDUAL CHARACTERISTICS

Characteristics of parents

Killen (1994) has argued that there are a number of central parental functions which are associated with quality of parenting: realistic perception of the child, realistic expectations of the needs a child might satisfy in the parent, realistic expectation of the child's coping and achievement, empathy with the child, ability to be emotionally positively engaged with the child, ability to give priority to the child's developmental needs, and ability to restrain aggressive behaviour towards the child. The degree to which parents can achieve each of these, she maintains, is influenced by a range of factors including an individual parent's immaturity, emotional problems, psychosis, intellectual ability, education, and substance abuse history.

Neglectful parents appear to exhibit deficits in several areas of parenting. Egeland, Breitenbucher and Rosenberg (1980) compared two groups of low-income mothers from Minneapolis, America, who experienced a high amount of stress in their lives. (The level of stress in a mother reflected the extent to which she had experienced events which were disruptive and required adjustment, such as sickness of a family member.) One group comprised 32 mothers who did not adequately care for their children in that they failed to meet the basic needs of their children, and the second group comprised 33 mothers who gave 'high-quality' care to their children. Comparing the behaviour of the mothers at 12 months after the birth of their children, the groups were found to differ in a number of ways. Mothers who mistreated their children interacted more poorly during feeding

and play times, and had less understanding and awareness of the difficulties and demands involved in being a parent than those mothers who were adequate carers. Research conducted by Benasich and Brooks-Gunn (1996) also suggests that mothers who do not provide a home environment which is stimulating and supportive for children, have significantly less knowledge about child development and child rearing concepts than mothers who do.

Hansen, Pallotta, Tishelman, Conaway and MacMillan (1989) have presented some evidence to suggest that neglectful parents are deficient in problem-solving skills. They compared 40 parents who were divided into four groups: those who were neglectful, those who were physically abusive, those who were not maltreaters but were seeking help for child behavioural problems (the 'clinic' group), and those who were neither maltreaters nor help seekers (the 'community' group). Whether the parents were maltreaters or not was determined using child protection services records. The parents included in the study were of similar age, psychopathology, and educational level, had a similar family income level, and had a similar number of children of a similar age. The parents were assessed in terms of their ability to solve problems, including problems associated with child behaviour and management, anger and stress control, finances, child care resources, and interpersonal problems. Hansen et al. observed that the parents who maltreated their children had poorer problem-solving abilities than the parents who did not maltreat their children in almost all of the problem areas examined. Furthermore, while parents from the neglectful and clinic groups appeared to have children with similarly high levels of behavioural problems, the neglectful parents had significantly poorer skills to deal with the problem behaviours than the clinic parents. Lacharite et al. (1996), in their case-control study described earlier, also found that neglectful mothers perceive they have more difficulties in managing children's behaviour, particularly in terms of setting limits and gaining cooperation from children, than non-neglectful mothers.

Several studies have shown that parental educational level is related to neglectful parenting. In two studies already discussed (Benasich & Brooks-Gunn 1996; Zuravin & DiBlasio 1996), maternal level of education was observed to have a significant negative relationship with the parenting measure used, even after a range of control factors were considered. In the Benasich and Brooks-Gunn study, the parenting measure used concerned the quality of stimulation and support provided by the parent, while in the Zuravin and DiBlasio study the parenting measure consisted of official reports of neglect. So, it seems, the fewer grades of schooling a mother has completed, the greater the risk for neglect.

Much has been written about the impact of parental psychopathology on child development. The general consensus is that parental mental illness disrupts the development of normal parent-child relations. A few studies have found a relationship between parental mental health and neglectful parenting. Sampson and Laub (1994), for example, found a significant association between parental mental health and the level of supervision by mothers. They did not, however, find a significant relationship between parental mental health and the level of parent-child attachment. As mentioned previously, a range of family-, parent- and child-related characteristics were controlled for in this study of delinquent and non-delinquent adolescent boys.

Chaffin et al. (1996) also examined the role of parental mental health in their large prospective study of parents. In their analysis they controlled for a number of social and demographic variables (parental age, gender, race, marital status and educational level; and household size) and parental substance abuse. Not only did they find that the presence of an obsessive-compulsive disorder in parents was significantly associated with the onset of neglect, but it was the strongest predictor of all the factors analysed. Chaffin et al. suggested that the obsessional rituals associated with the disorder may interfere with the parents' child rearing responsibilities. They did not find that parental depression was a significant risk factor for neglect when the effects of other factors were controlled.

Other researchers have found a relationship between parental depression and neglectful parenting. As mentioned earlier, Zuravin and DiBlasio (1996) included maternal depression in their study of young mothers. Adjusting for differences between the respondents, postnatal depression emerged as a significant predictor of officially reported neglect perpetrated by the mothers. Gaudin et al.'s (1993) also found higher self-reported levels of depression among neglectful mothers than non-neglectful mothers in their case-control study. However, as mentioned earlier, the depression reported by neglectful mothers in this study was probably more related to the fact that the neglectful mothers had poor social support networks rather than being a causal factor of neglect.

It has been suggested that unplanned pregnancies increase the risk of child neglect and this issue has been explored by Zuravin (1987). She conducted a case-control study of 119 mothers who were receiving child protection services for neglecting their children, and 281 mothers who were not receiving such services. All mothers in the study were from Baltimore and were receiving government financial aid and were not living with a legally wedded spouse. After controlling for respondent characteristics relevant to the risk of neglect (race, age, marital status, employment status, and level of education), Zuravin (1987) found that the number of unplanned pregnancies was a significant risk factor for child neglect. As the number of unplanned pregnancies increased, so did the risk of neglect. She also found that unplanned pregnancies stemming from failure to use birth control measures were more likely to lead to child neglect than unplanned pregnancies stemming from ineffective use of birth control. She concluded that neglect and unplanned pregnancies were perhaps manifestations of the same underlying difficulties, that is, poor interpersonal skills and generally inadequate coping abilities.

There is good a priori reason to believe that there may be a relationship between substance abuse and neglectful parenting. When parents are addicted to drugs their primary commitment is to drugs and not to their children. Their preoccupation with drugs may take precedence in their lives so that they are unable to attend consistently to their children's emotional needs or provide the psychological guidance crucial to the nurture of children, such as encouraging children to develop a range of competencies, supporting their academic learning, and monitoring their peer relationships (Rosenberg & Sonkin 1992). Also, drug-dependent individuals often lack attributes which are necessary for effective parenting, such as positive self-concepts and high frustration tolerance (Davis 1990). Surprisingly, however, few studies have examined the role of substance abuse in child neglect specifically. Moreover, findings from the few studies which have been conducted have been mixed.

The role of substance abuse in neglectful parenting was investigated by Chaffin et al. (1996) in their large prospective study of parents. After they took into account variations in household size, and the age, gender, race, marital status, educational level and mental health of the parents in their sample, they found that parental abuse of alcohol or other drugs was a strong predictor of child neglect. According to their results, the presence of substance abuse in parents tripled the risk of child neglect.

However, another prospective study which compared neglectful mothers and non-neglectful mothers did not find that alcohol or drug problems differentiate between the two groups (Brayden et al. 1992). Similar negative results have been reported by other researchers. Harrington, Dubowitz, Black and Binder (1995) conducted a study to test the hypothesis that children of substance-abusing parents experience more neglect than children of parents who are not drug abusers. Neglect was measured in terms of the extent to which mothers provided a stimulating and supportive home environment, and met their child's physical, psychological and social needs. They recruited mothers from hospital clinics who were the biological parent and primary caregiver of a child aged between two and 30 months of age. These mothers formed two groups: a group of 52 substance users and a group of 67 non-users. Women selected for the substance user group reported current or past drug use, were tested positive for drugs at the birth of their child, or had children whose medical records indicated a history of substance use. The groups were matched on level of education, and the children's age, race and sex. The drug-using mothers were significantly older than the non-using mothers and were more likely to be receiving government financial aid, so these variables were included as control factors in the analysis. When Harrington et al. tested for differences in the adequacy of caregiving between the two groups, they did not find any. They suggested that variations in patterns of drug use among the mothers in the drug-using group may have masked any possible differences. It would not be surprising, for instance, to find that mothers who only used drugs in the past do not presently neglect their children, and indeed, over 60 per cent of the mothers in the drug-using group reported using drugs in the past.

Simons and Robertson (1989) looked at the association between parental drinking patterns and parental rejection of adolescents as seen by adolescent boys. They found that there was no relationship between the boys' perceptions of problem drinking by their mother or father and whether the parents showed concern and interest towards them.

Characteristics of children

There is some evidence to suggest that child characteristics play a role in child neglect. Although child factors probably do not play a major role, certain characteristics appear to place some children at heightened risk of neglect. These characteristics may be developmental and/or behavioural. Children, who are drug-exposed prenatally, and handicapped children, for example, may be at greater risk for neglect than others because of the special difficulties they pose for their parents. The risks are thought to be higher among these groups of children because their special problems disrupt the bonding process between mother and infant, and because they cause greater stress for caretakers (Ammerman 1990). Infants who are prenatally exposed to drugs, for example, are difficult to care for because of their irritability, poor and irregular feeding patterns, and frequent crying.

Jaudes, Ekwo and Van Voorhis (1995) tested the hypothesis that children born to mothers who use drugs during their pregnancy are at a higher risk of subsequent neglect than infants in the general population. They identified 513 women who had used illicit drugs during their pregnancy (based on toxicology tests) and who gave birth in a Chicago urban medical centre during a five-year period. Over this time they checked State records for incidents of subtantiated abuse to determine which children born to the women in the sample had been abused. Taking into account the length of time these children were potentially at risk of abuse, they calculated the risk of substantiated abuse. They then compared this rate with the rate of substantiated abuse for the population in the area surrounding the hospital from which the sample was drawn. They found that the rate for drug-exposed children was almost two times the rate for the general population.

Kelley (1992) conducted a case-control study of 24 children who had been exposed to drugs prenatally (based on the mother's positive drug test or self-reports of use during pregnancy) and 24 children who had not. She was interested in examining the relationship between pre-natal exposure to drugs, parenting stress and child maltreatment. The two groups of children were matched on age (ranging from 1 to 33 months), gender, race and socioeconomic status. There were no differences between the groups on a number of other characteristics, including the father's age, the number of children born to the mother, the mother's marital status, and whether the mother was receiving government financial assistance. Some differences did exist. Mothers and fathers of the drug-exposed children had received less education than the comparison parents, and the fathers in the drug-exposed group were less involved in the child's life. Also, the drug-exposed children were more likely to have been born prematurely and to have had a lower birthweight than comparison children. When Kelley compared the groups of children, she found that the drug-exposed children were more likely than the comparison children to be in foster care, with about 41 per cent of the drug-exposed children in foster care compared with none in the comparison group. Elevated levels of stress were found among foster mothers of drug-exposed children, and biological mothers of drug-exposed children had even greater levels of stress. The biological mothers of drug-exposed children reported having more problems in attaching to their children and with feeling competent as a parent than comparison mothers. Foster mothers of drug-exposed children described their foster children as more hyperactive and less adaptable to their surroundings than the comparison mothers. Kelley concluded that the neglect observed was likely to be the result of a combination of infant and caretaker characteristics.

The risk of maltreatment (mainly neglect and emotional abuse) among handicapped children and adolescents has been investigated by Verdugo, Bermejo and Fuertes (1995). They compared three groups of children: a group of 51 children who were maltreated and handicapped, 264 handicapped children who were not maltreated and came from the same institutions as the abused children, and a group of 403 children who had no disabilities. They found a greater prevalence of maltreatment among the handicapped group of children than the group of non-handicapped children. Furthermore, the risk for neglect appeared to increase as the child was less functionally impaired. As Verdugo et al. did not control for potential differences between their study groups, it cannot be concluded with any

confidence that disability independently increased the risk of maltreatment. Indeed, evidence was presented to suggest that other factors may have contributed to the observed differences. A large proportion of the parents who maltreated their children, for example, were reported to have drug-related problems and psychological disorders.

In their prospective study of newborn infants from low-income women, Brayden et al. (1992) reported a number of differences between children who eventually became neglected and those who did not. The neglected children had a lower mean weight at birth, and were rated as having lower motor and mental ability than children who had not been neglected. Also, mothers of the neglected children indicated that their children had more difficult temperaments and also responded more poorly to stress than mothers of non-neglecting children indicated. However, it is inconclusive whether these child characteristics were risk factors for neglect, because, as mentioned earlier, the neglectful and non-neglectful mothers differed in a number of ways, including level of parenting skill and their perceived level of social support. Perhaps, as Kelley (1992) concluded, both child and parental characteristics were responsible for the neglect of the newborns observed in this study.

Sampson and Laub (1994) considered the effect of difficult and antisocial childhood behaviour on parenting styles in their study of delinquent and non-delinquent boys. Boys who were rated difficult and who habitually engaged in temper tantrums and generally misbehaved as children, evidenced relatively low levels of supervision by their mothers, and weak attachment with their parents as adolescents. These effects remained significant when other factors were controlled for, such as family size and parental mental health.

COMBINED EFFECTS

While research studies have demonstrated that a number of factors are independently related to neglect, it should be recognised that child neglect is a complex phenomenon and is likely to be multi-causal. Ecological researchers, for example, have shown that variations in maltreatment rates across communities are best explained by the combined effect of variables such as parental education, family income, and family structure (e.g. Kotch, Browne, Ringwalt, Stewart, Ruina, Holt, Lowman & Jung 1995; Garbarino & Sherman 1980). Researchers examining differences between individuals have similarly shown that parents who neglect their children can be distinguished from parents who do not on several risk factors simultaneously (e.g. Benasich & Brooks-Gunn 1996; Chaffin et al. 1996; Zuravin & DiBlasio 1996; Coulton et al. 1995; Sampson & Laub 1994). The fact that not all neglected children come from families who experience a risk factor, such as economic hardship, is further evidence for multiple paths to neglect. It is likely that risk factors combine to further heighten a child's risk of being neglected. For example, a mother who has a difficult child is likely to be at greater risk of neglecting or rejecting her child if she has a mental health problem than if she has not. Also, a parent who is experiencing economic hardship is less likely to neglect or reject her child if she has a good social network than if she has a poor social network. Similarly, good social networks and adequate household income may attenuate the risk of child neglect in families with disabled children.

SUMMARY AND CONCLUSIONS

The studies reviewed here show that a multitude of factors, rather than just one, determine the risk of child neglect, and therefore the later risk of juvenile delinquency. These factors operate at a number of levels, including the societal, the family, and the individual level. The greatest amount of attention appears to have been devoted to factors at the societal level, and it is these factors which emerge as amongst the important risk factors.

Clearly, economic factors play a role in child neglect. The effects of economic factors are largely indirect. Economic hardship, brought about by poverty or unemployment, may affect the emotional well-being of parents and, in turn, lead to changes in parenting behaviour. Some parents faced with economic pressure become less nurturing, less responsive, and more rejecting of their children. In some cases this behaviour is serious enough to be detected by outsiders and reported to authorities.

This review has presented strong evidence to the effect that a rich social network can act as a protective buffer against neglect. Mothers who have numerous people available to them to offer child care advice and relief, and provide emotional support, are less likely to neglect their children than mothers who do not. Neighbourhoods which are characterised by poor child care resources, a high turnover of residents and weak neighbour ties provide conditions which increase the risk of neglect.

Whilst, in comparison to research on societal factors, a relatively small amount of research has been conducted into the role of family, parental and child characteristics in child neglect, the available evidence indicates that some of these characteristics can be regarded as risk factors. In particular, the presence of larger numbers of children in a family has consistently been shown to increase the risk of neglect. Intuitively this makes sense. A parent who has several children is physically unable to attend to her or his children to the same degree as a parent who has only one child or two children.

Parents who have inadequate knowledge about child development and who are unaware of the demands involved with being a parent also appear to be at a higher risk of neglecting their children than other parents. Given this, it is, perhaps, not surprising that a parent's educational level is also related to the risk of child neglect. Parents, and in particular mothers, who have completed relatively fewer grades have an increased chance of being neglectful of their children.

Some groups of children appear to be at heightened risk of neglect. Commonly these children have special developmental needs and display behaviour which is difficult for the parents to manage. Children who typically fall into this group include those who have been exposed to drugs prior to birth, and children who are handicapped.

Although it is not the aim of this review to discuss the issue of prevention in great detail, it is obvious that one way of reducing crime is to develop strategies for reducing the prevalence of child neglect. Research studies on risk factors for child neglect have provided policy makers with a wealth of information which can be used to guide decisions about the types of prevention services that should be available for families. Given that there are multiple determinants of neglect, a prevention program which addresses a single risk factor is unlikely to be effective. The prevention programs that are likely to be effective (and which appear to be successful at reducing child neglect in America) are ones which not only provide a *range* of services to the target

population, but also ones which are well-integrated into the broader network of services within the local community (Daro, Jones & McCurdy 1993). Child neglect prevention programs should aim to achieve the following:-

- improve the economic well-being of families, especially those families with several dependent children,
- reduce the burden of child care and increase the availability of practical support,
- reduce social isolation and increase the availability of emotional support,
- increase a parent's knowledge of child development and the demands of parenting, as well as home and child management,
- enhance a parent's skill in coping with the stresses of infant and child care, especially in families where there is a child with special needs such as a prenatally drug-exposed child or a child with a disability.

In New South Wales (NSW), a number of programs and policies operate which are relevant to the prevention of child neglect. Just a few of these will be mentioned here. The NSW Department of Community Services (DOCS) funds a number of prevention programs, many of which are early prevention programs aimed at providing support, counselling and training to families before their problems reach crisis-stage. A 'Home Visitor Scheme' is funded, for example, which aims to help parents in young and isolated families improve their parenting skills and access to community services. Trained volunteers visit these families in their homes on a regular basis to provide practical and emotional support, and, if necessary, refer the families to specialist workers and agencies for further support. A recent small-scale evaluation of one of these programs found it increased parental confidence and social links, and improved family functioning (Centre for Children 1996a). Evaluations of similar programs in America have also found that Home Visitor Programs are effective at alleviating problems which increase the risk of child neglect (Daro et al. 1993).

'Parent Line' is another service funded by DOCS. It is a telephone counselling service for parents who want immediate advice and information about child rearing issues. Again, where necessary, parents can be referred for specialist counselling and treatment. Because of its anonymity and 'non-welfare' image, it is thought to encourage contact from parents who may otherwise be reticent to seek help.

One program operating in NSW provides services specifically for parents who have a long-term mental illness and who are expecting a child or have a child under the age of three. Professional support is provided to families in their own home with the aim to reduce the negative impact of the parent's mental illness on the child. Known as the 'Families Together Program', it caters for families living in the Eastern Sydney area and is run by the Benevolent Society of New South Wales, a charity organisation. Results from a recent evaluation suggest that the program is meeting its aim (Centre for Children 1996b).

These sorts of services are very important, not only in their own right, but because they are an essential part of any long-term strategy for reducing the rate of initiation into crime. Of course if they are to have any discernable impact on the rate of child neglect, and therefore the rate of crime, there is a need to ensure that the services are sufficiently resourced and readily accessible for at-risk parents and families.

NOTES

1 These control factors were not defined in the study. However, the authors state that they were measured through the use of subscales from the short form of the Family Environment Scales (Moos 1974).

2 Simons et al. obtained these findings using path analysis. They found that delinquency at Time 1 was not related to parental rejection at Time 2 when delinquency at Time 2 was controlled. Likewise, parental rejection at Time 1 was not related to delinquency at Time 2 when parental rejection at Time 2 was controlled. At Time 2, parental rejection had a significant effect on delinquency, but delinquency did not have a significant effect on parental rejection.

3 The 'Department of Family and Community Services' was the name of the government department responsible for child protection in New South Wales at the time of the study.

4 Socioeconomic disadvantage was determined according to a number of Census variables including income, occupation, unemployment, marital status, crowding, residential mobility, Aboriginality and migrant status.

5 The 'potentially neglectful' and 'adequate' families were placed into these categories according to assessments made by public health nurses based on the families' child rearing abilities.

6 The relationship between family poverty, parenting styles and delinquency was examined using path analysis statistical techniques.

7 The statistical techniques used were structural equation modelling.

8 An example of an item used to measure adolescents' sensitivity to evaluation by significant others is 'When my classmates talk about me, I pay attention and want to know what they are saying'.

9 The parents in the sample were selected from five sites in America (New Haven, Baltimore, St. Louis, Durham, Los Angeles) using a multistage sampling process in which all respondents did not have an equal probability of selection. Sample weights were applied to adjust for differences in selection probability.

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