CHILD-REARING PRACTICES AND DELINQUENCY IN CHILDREN AND ADOLESCENTS

Stavros P. Kiriakidis

University of Macedonia

The present paper is an overview of studies examining the way family influences the development of delinquency in adolescents. The review focused on published papers dealing with the association of adolescent delinquency and their families. The association between family practices and juvenile delinquency, with potent predictive value is established and bidirectional effects exist. However the influence from parents to adolescents is stronger. In addition indirect evidence, from early intervention studies, supports the causal role of family variables in the development of juvenile delinquency. Effective family functioning, in spite of several social adversities, exerts a buffering influence on children, thus protecting them from delinquent behavioural manifestations. Finally, the assumption that genetic influences are responsible for both poor child-rearing practices by the parents and juvenile delinquency is not well supported by the literature, suggesting that effective parenting exerts an independent influence in the socioemotional functioning of children and adolescents. The evidence suggests that effective child rearing practices is a necessary though not sufficient factor for the psychosocial development of children and adolescents. Educational programmes, of a preventive nature, could be promising in reducing levels of delinquency. The important role of family functioning in protecting children and adolescents from antisocial behaviours is evident from many studies internationally. The protective role of parenting is generally supported. The role of a supportive family environment could be suggested as a protective factor for juvenile delinquency.

Neglect in the family has been considered a risk factor for multiple problematic outcomes in adolescence. Parenting has been consistently found to be related and predictive of juvenile delinquency; thus, it is considered a general risk factor for juvenile delinquency and general socio-emotional functioning (Loeber & Farrington, 1998; Pedersen, 1994). Research has followed a variable-oriented strategy, and family functioning has been viewed as a single attribute responsible for many adverse outcomes, including delinquency and substance abuse among others, following the principle of multifinality (Thornberry, Ireland, & Smith, 2001). On the other hand, regarding adolescent delinquency, it has been proposed (Rutter, 1994; Rutter et al., 1997; Rutter, Giller, & Hagell, 1998) that the causes of antisocial and offending behaviour are not easily captured under one causal factor –rather, many factors are operating in adolescents' and young adults' offending behaviour, consistent with the principle of equifinality (Thornberry et al., 2001). A combination of various risk factors with either additive or interactional effects has been proposed (Farrington, 1995).

Longitudinal Studies Predicting Juvenile Delinquency from Child-Rearing Practices

McCord (1979), reviewed files of 201 boys, participating in a treatment program of delinquency prevention between 1939 and 1945, who were reared by their natural mothers. The files contained information about their home environment and compared them with court reports thirty years later to obtain an index of offending. This methodological procedure had the advantage that *measures of home atmosphere were uncontaminated by retrospective biases and measures of subsequent behavior were uncontaminated by knowledge of home background* (McCord, 1979). These two sources of data were independent, not coded by the same individuals and they were oblivious of the other source of data. Results from the study indicated that more than a third of the variance in both number of convictions for property offenses and offenses against persons could be predicted from six variables reflecting the child's home environment.

In addition, the most potent predictors were related to child-rearing namely supervision, maternal affect and parental conflict. Furthermore, 75% of the sample could be classified as ever criminal or non-criminal, as youngsters, while a higher 80% could be classified as criminal or non-criminal as adults, that is, after the age of 18, better than chance. The results are limited to the population from which the sample was selected. However they provide support for the possible detrimental effects of poor parenting on the development of juvenile and adult delinquency. Additionally clearly identify home environment, and more specifically, parental child-rearing practices, as potent predictors of juvenile and adult criminality.

Farrington (1995), identified poor parental child-rearing behavior as among the most important independent predictors of juvenile delinquency, based on the results from the Cambridge Study In Delinquent Development, ...a prospective longitudinal survey of the development of delinquency and antisocial behavior in 411 South London boys. A main focus of this study was on continuity or discontinuity in behavioral development, on the effects of life events on development, and on predicting future behavior (Farrington, 1995: 930). He noted that strict, controlling discipline, lack of supervision, intermarital conflict and separation from parents constituted the basic elements featuring family functioning that had the most detrimental effects on juvenile male development and the development of delinquent behavior. Farrington (1995), further argued that juvenile delinquents differed significantly from unconvicted juveniles (the measurement of delinquency based either on official convictions or self-reported delinquency, both of which provided similar results), at age eight to ten before anyone in the sample was convicted. On several aspects of their familiar environment, They tended to be receiving poor parental child-rearing behavior, characterised by harsh or erratic parental discipline, cruel, passive, or neglecting parental attitude, and parental conflict. The parents tended to supervise them poorly, being lax in enforcing rules or under-vigilant (p. 939). Furthermore, potential juvenile delinquents were more likely to have experienced separation from their parents and their parents tended to have authoritarian child-rearing attitudes.

Moreover, at age 14, those boys who later became delinquents, showed the same pattern of characteristics with regard to their family environment as at age eight to ten, suggesting a continuity of those family characteristics that are related to delinquent behavior over time, and their pervasive influence on child and adolescent psychosocial development. Although the predictive efficiency of poor parenting behaviour, independently of other predictors, was established, it was not possible, as Farrington (1995) argued, to distinguish the possible influence that genetic factors might have played. The study did not include a behaviour genetic design, examining twin brothers and/or adopted children. If this was done they could have partialled out the influence of biological factors and the environment on delinquent behaviour. Thus genetic influences could account for both poor parenting practices and juvenile deliquent behaviour.

Henry, Moffitt, Robbins, Earls and Silva (1993), in a prospective longitudinal study, attempted to examine the predictive utility of family related variables with children and adolescent antisocial behavior. This was measured from different sources of information, self-reported, official and parents', teachers' and peer ratings. Certain aspects of family functioning were related to general psychosocial child and adolescent functioning, being associated with both externalizing (delinquent behavior) and internalizing (anxiety/ depression/ withdrawal symptoms). The study supported the suggestion that dimensions of the relationship between parents and children could be regarded as general nonspecific risk factors for the psychosocial development of children and adolescents. The study also compared adolescents who showed delinquent behavior and those with other disorders, mainly internalizing symptoms, in an attempt to identify those familial variables that are exclusively related and predictive of different and distinct psychosocial problems in adolescence, with the aim to identify factors possibly uniquely and causally related to delinquency as opposed and compared to internalized psychosocial problems. The results revealed that the two most important predictors of antisocial behavior at age 11, measured by times of police contact, was parental disagreement on discipline when the child was five years old and the number of parent changes experienced in childhood. Cumulative summation of the number of parent changes to age 13 was the most important predictor of the number of police contacts by that age, suggesting a possible causal role of family stability in early adolescent delinquent behavior. Although the percentage of variance explained was quite modest, it provided evidence for unique predictors of antisocial behavior in late childhood and early adolescence.

As Henry et al (1993) noted, several other characteristics could also have been measured, for example, paternal characteristics and family criminality, which could account for higher percentage of variance

in delinquent behavior. Moreover, delinquent behaviour could have been operationalised as a continuous variable. If this was done, a higher proportion of the variance could have been accounted for by the predictor variables. Yet the approach of group membership provided more confidence in identifying unique correlates and predictors of delinquent behavior, especially stable and pervasive antisocial behavior. It is worth noting that the socio-economic status of the family and pre-school behaviour problems, were controlled. This was done, to statistically partial out the possibility that social adversities and early tempermentally difficult children could tax the skills and patience of parents and influence the stability and quality of the parent-child relationship. Thus, it was possible to assess the relative contribution of other aspects of the family life in the prediction of adolescent delinqueny. The two aforementioned variables were identified as possible confounding variables of other correlates of adolescent delinquency. The procedure followed permitted, statistically and to a certain degree, to estimate the relative contribution of variables of a more dynamic psychological nature, as opposed to static social class and biological determinants.

Kolvin, Miller, Fleeting and Kolvin (1988), report similar results from the analysis of the data of the Newcastle Thousand Family Study. The study was a birth cohort longitudinal study of one thousand one hundred and forty two infants, boys and girls. The aim of the study was to investigate the relative contribution of several indices of deprivation in the prediction of delinquency and the possible transmission of deprivation and delinquency across generations. There were included indices reflecting social deprivation, and ratings about marital instability, poor physical care of the children and poor mothering ability. It was found that poor physical care of the child and the home by the mother emerged as the most significant factor associated with general delinquent behavior. It was also consistently related with different types of delinquent behavior such as violent offenses, theft, fraud, criminal damage, drinking and motor offenses. Additionally, male offenders tended to have parents who were rated as ineffective in their parental role and more aggressive fathers. They concluded that although the operative mechanisms linking deprivation to delinquency are not clear, taken together, the findings again emphasize the importance of poor supervision, direction, and guidance of children in the genesis of delinquency (p. 89).

In support for the role of poor child-rearing practices in the prediction of juvenile delinquency comes from a review of the most potent predictors of male delinquency, by Loeber and Dishion (1983). According to the evaluation of several studies measuring parental skills and child-rearing practices to predict future delinquent behavior, parental family management techniques emerged among the most potent ones in predicting male adolescence delinquent behavior. The authors stressed the importance of family related variables both for prediction purposes and preventive actions against the development of delinquency, as family dysfunction can be measured early in the life of children and proper intervention applied. Furthermore, the research showed that children and adolescents from families employing poor family management techniques accounted for approximately half of the offences committed, although they represented a small proportion of the children (approximately 11% to 16%). This finding revealed that offending was gathered within families. The authors suggested that some families were more at risk of delinquency than others, and child-rearing practices could be responsible for that discrimination. A similar pattern emerged from the Cambridge Study In Delinquent Development, where five percent of the families accounted for half of all the convictions of all family members (Farrington, 1995: 939), providing extra support for the assertion that environmental factors, expressed by family environment, might be encouraging juvenile delinquency.

In terms of prediction and according to many longitudinal studies (Farrington, 1995; Henry et al, 1993; McCord, 1979), child-rearing practices, operationalised in different ways, consistently predict antisocial behavior and contacts with the law during adolescence. The measurement of child-rearing practices was made at a time when the children were at a young age and prior to any manifestation of antisocial behavior by the children it seems likely that parental management is a probable antecedent of juvenile delinquency and antisocial behaviour.

Intervention Studies Suggesting a Causal Role of Child-rearing Practices in Antisocial Behaviour Larzelere and Patterson (1990) and Patterson (1986) reported that interventions aimed at parental education and training to deal with delinquent and antisocial behavioral manifestations in children and adolescents, resulted in reductions in the antisocial conduct of the adolescents. Patterson and Reid (1973), replicating an earlier study of parental education on monitoring and effective use of behavioral principles for reducing antisocial behavioral manifestation of their children, reported that nine out of eleven families showed reductions of greater than 30 per cent (targeted deviant behaviour) from

baseline (Patterson & Reid, 1973: 390). Although the results of the study aimed at changing different kinds of antisocial behavior in general and aggression in particular, they, however, provide support for the proposition that parental management is determining, to a high degree, the antisocial and aggressive behavior of children. Additional indirect evidence of the causal status of parenting in the development and maintenance of antisocial behavior across the life span comes from early intervention programs targeting those risk factors that have been consistently associated and predictive of antisocial conduct. Yoshikawa (1994) reviewed the programs that had been designed to provide early family support and education to children and their families who were under the influence of risk criminogenic factors. The interventions were intensive during the children's first five years and were designed with a clear research orientation and assessment of progress in view. They included control groups and random assignment to intervention with extensive follow-ups that enabled the researchers to assess possible sleeper effects and stability of gains over time. The studies actually postulated two pathways in the development of resiliency against delinquency, one through the effects of cognitive development and school achievement and the other through the enhancement of parenting for buffering socio-emotional dysfunction. The interventions were designed to facilitate the general development of children and functioning of the families.

Yoshikawa (1994), had noticed sustained improvements in the socio-emotional functioning of the children, which included school attainment, reduction in delinquency and antisocial behavior and less chronic delinquency rates in comparison to the controls. Although these results are helpful in estimating the efficiency of early intervention programs, the evidence for the effects of parenting in the general socio-emotional functioning in children, including delinquency, over time can only be inferred indirectly, as the components of the programs targeted many risk factors. However, mainly family support and children education (Danos, 2003; Kavoura, 2001) with those targeting both achieving better results than those that targeted either of them, may be mainly due to their cumulative or interaction effects. Despite the difficulty inherent in the studies, to assess the relative contribution of improved parenting on the delinquent behavior of the children, it seems that effective parenting is a necessary, while not sufficient, factor for the normal development of children and the inhibition of antisocial behavior and delinquency in childhood and adolescence.

Reciprocal Parent-Child Effects in the Development of Antisocial Behaviour

Although the association between parental rejection and persistent juvenile offending seems supported, it is not evident that parental rejection causes delinquency and persistent offending. It is equally plausible to assume that delinquency induces parental rejection or there is a bi-directional relationship (Borduin and Schaeffer, 1998). Liska and Reed (1985) examined the reciprocal effects of ties to conventional institutions and juvenile delinquency, and the results from family studies, measuring parental attachment, supported the idea that low attachment precedes delinquency. They noted that parental attachment is implied by many theories of juvenile delinquency as a causal antecedent of delinquency, although they may disagree on the underlying processes that account for the association. By examining two main institutions that have been consistently associated with juvenile delinquency, family and school, they hypothesized that the effects might be reciprocal. Lower family and school attachment to influence juvenile delinquency and delinquent behavior had an effect on family and school ties by inducing reprimanding and rejecting behavioral responses by parents, teachers and classmates. They reanalyzed the data from the Youth in Transition study (Bachman, 1975 cited in Liska and Reed, 1985) a four-wave, multistage, national probability sample of 1,886 boys to test their hypotheses.

Liska and Reed (1985) concluded most of the observed negative relationship between parental attachment and delinquency comes about because of the effect of parental attachment on delinquency (p. 557). In general it was supported that parental rejection had a direct effect on adolescent delinquent behaviour and that the relationship between the two was bi-directional. In addition variability of intervening processes for that relationship has been proposed.

Similar results are reported by Simons, Robertson and Downs (1989). In a two wave panel data of adolescents aged between 13 and 17 years it was found that the path coefficient for the effect of parental rejection on delinquency was significant, whereas the reciprocal path, that is, from delinquent behavior to parental rejection, was not. The results suggest that parental rejection has a possible causal effect on adolescent delinquency and that reciprocal effects are not probable, noting the importance of the quality of the parent - child relationship in the development of antisocial behavior in the adolescent. Evidence, however, for reciprocal, transactional effects between children and parents, for the development and expression of conduct disorder in children and adolescents, has been reviewed by

Lytton (1990). Despite the evidence reviewed, it was recognized that family factors, and especially maternal affection, could act as a buffering factor for the expression of conduct disorder.

Rutter et al (1998), in evaluating research about parents-children effects in the relation of coercion and hostility with antisocial behavior, reported that, although children effects on the behavior of their parents exist and the relationship seems to be bi-directional, this cannot be the principal explanation. Family circumstances have been shown to be predictive of adolescent criminality even from the preschool years. The authors concluded that a reciprocal dynamic process can be suggested which is more evident in younger children than adolescents and that the relative strength of each part of the bi-directional relationship remains to be established.

Patterson's Coercion Model of Reciprocal Parent-Child Effects in the Development of Antisocial Behaviour

The recognition of reciprocal parent-child effects in the development of antisocial behavior in children and adolescents has been incorporated in performance models advanced by Patterson (1986) and Patterson Dishion and Bank (1984) for antisocial boys. The first of the models deals with the learning of antisocial behavior in the home, within a social-interactional perspective. The assumption central to the general model is failure by parents to effectively punish garden variety, coercive behaviors sets into motion interaction sequences that are the basis for training in aggression. The process set into motion involves family members in patterned exchanges of aversive behaviors; the exchanges are such that both members train each other to become increasingly aversive. This process is labeled coercion. (Patterson, 1986: 436).

The central and important parental determinant of aggressive patterns in the boys is suggested as being ineffective discipline by parents. Analysis of interaction sequences at the micro social level within the family of antisocial children, revealed that parents respond to disciplinary confrontations with verbal aggressive responses. Some of these include, threats, nagging and lecturing, while they fail to follow their verbal warnings with concrete punishment, in terms of withdrawal of privileges, time out, etc. On the contrary, infrequent, sudden explosions from parents with physical punishment were often observed.

In general, Patterson (1986) and Patterson, Dishion and Bank (1984) suggested that a vicious cycle of coercive exchanges within the family provide a training of coercive patterns to both children and parents. These patterns can potentially escalate to aggressive behaviour and generalize to other settings where children function such as, school, and peer groups. Thus coercive patterns substitute for social skills in everyday social exchanges. The consequences from coercive behavioural patterns of the children in these settings include rejection by peers, low academic attainment and low self-esteem. Furthermore, Patterson (1986) suggested that this process would be more detrimental for children when a combination of poor parental skills and difficult temperament of the child is evident. The presence of other stressors such as substance abuse is expected to exert a negative influence on parenting, thus initiating, maintaining and escalating the coercive exchanges of parents and children within the family. Within the coercion theory the reciprocal effects of parent-child bi-directional relationship have been most accurately described and incorporated into a model of development of antisocial behavior in children and adolescents.

In line with the theoretical model proposed by Patterson (1986), Stice and Barrera (1995), examined the reciprocal relations between parenting and adolescent substance abuse and externalizing behavior. Utilizing data from a two-wave study with an one year interval, and employing structural equation modeling techniques, the authors reported that full prospective reciprocal relations were found between perceived parenting and adolescent substance use, such that deficits in both parental support and control prospectively predicted adolescent substance use, and adolescent substance use was prospectively related to lower levels of parental support and control. In addition regarding externalizing symptoms, the prospective effects of adolescent externalizing behaviour on parenting practices are consistant only with that aspect of the reciprocal effects model that allows for child influences on parenting practices (Stice and Barrera 1995: 30)

While the results by Stice and Barrera (1995) suggest a two-way transactional relationship between parent and adolescent behavior, externalizing symptoms are usually manifest earlier in childhood and, by adolescence, they may have been stabilized and the influence of parenting on adolescents' behaviour may not be observable, while adolescents' behavior effect on parental support and control would be easier to trace. Consistent with the view that the association between parenting and antisocial behavior may change over time, adolescence, as a distinct developmental period, might not be very

informative for the study of parental effects in the initiation of externalizing symptoms, as they are more likely to exert an influence earlier in the child's life.

Moreover it is equally plausible to assume that, parental influences in the initial learning of externalizing and anti-social behaviours are prominent in childhood. However during lifespan development, other factors and agents, such as deviant peers and school failure, become more prominent in the maintenance, further development, escalation and generalisability of those behavioural patterns. This makes the study of the parental influences on the manifestation of externalizing symptoms difficult to reveal in adoleascence.

Genetic Mediation of Child-Rearing Effects on Juvenile Delinquency

The recognition of reciprocal parent-child effects in the expression of antisocial and delinquent effects is evident mainly in childhood. Interventions aimed at changing child-rearing practices resulted in reductions of children's anti-social behaviour. Parental childrearing practices showed predictive efficiency accounting for both self-reported and official reported delinquency. The probable primary effects of parents on children and adolescents in the expression of antisocial and delinquent behaviour seems supported. However this does not mean that these could be the main sources of delinquent adolescent behaviour. It is equally plausible to assume that both, harsh, rejecting and coercive parenting, and, delinquent behavior of children, in addition to the fact that many young offenders have parents that show antisocial behavior themselves, including convictions (Farrington, 1995) are both manifestations of the same tendency for antisocial and delinquent behavior. That is genetically transmitted from parents to their offspring, thus accounting for the relationship of poor parenting and adolescent delinquent behavior (Rutter et al, 1998).

Rutter et al (1998), in reviewing studies, mainly adoptee and twin studies, deals with the genetic influences in the development of antisocial and delinquent behavior. He concluded that there is a rather strong genetic influence in the case of hyperactivity and that of liability which overlaps greatly with that of antisocial behavior when the two are associated (Rutter et al, 1998). While there is a stronger environmental influence in the case of self-reported antisocial behavior, which is not associated with hyperactivity and peer relationship problems. For delinquency the genetic influence is much weaker, in contrast to aggressive or anti-social behaviour. In addition the genetic influence appears to be influential in the case of early onset and persistence into adulthood rather than in adolescent limited delinquency. Rutter et al (1990a) argues that different genetic research designs have different methodological limitations. Furthermore, multiple methodology should be employed so that the strengths of one method cancel out the disadvantages of the other. Despite any methodological deficiencies in either adoption and twin studies, and their variants, when results tend to be replicated with different methods and are consistent with different methodological designs and operationalisations, the results should be viewed with greater confidence.

Rutter et al (1990a) argued that twin designs assuming that the family environments for monozygotic and dizygotic twins are comparable. Monozygotic twins are more likely to be treated in the same way in comparison to dizygotic twins. Being a member of an identical twin pair may influence development in a unique way, and having an unusually close relationship with an identical twin sibling, are likely to be factors that make monozygotic twins show more behavioural similarities in comparison to dizygotic twins. Rutter et al (1990a) argued that these environmental factors not captured in the twin designs are likely to overestimate the genetic influence of behaviour manifestations of monozygotic twins in comparison to dizygotix twins. Rutter et al (1990a) further argued that the disentaglement of genetic and environmental forces in shaping behaviours is better achieved by adoption studies. In such studies the behaviour under investigation is examined in the biological parents and the adopted-away children. Adoption studies are often characterized by a lack of data on the biological father and they cannot easily estimate the environmental interactions and biases that may arise from the difficulties of being an adopte child. Rutter et al (1990a) noted that while the rate for psychiatric disorders in adoptees is higher than the general population norms, rates of criminality are not and this finding is suggesting that the rate of psychiatric disorders in adoptees is likely to, at least partially, derive from the stresses associated with being an adopted child.

However, regarding the genetic influences in antisocial behaviour that have been argued by adoption studies Stoolmiller (1999) suggested that they should be interpreted with caution. The author suggested that the relatively less influence of family environment found in adoptee studies could be attributed to the restricted range of family environments sampled in such studies. This is possible since the families finally participating in the studies are subject to several selection processes. Such processes are the

criteria of adoption agencies for placing children, self-selection by future adoptive parents and volunteering in a study. Stoolmiller (1999), argued that those selection processes are likely to provide an adoption study with a sample characterised by a restricted range of family environment as all the selection processes are highly likely to result in families with good family environment and child-rearing practices, with limited within group variability, thus almost rendering child-rearing practices into a constant. The same degree of restriction in the values of other family characteristics like socioeconomic status or intelligence is not likely to occur to the same degree. This is possible only to the extent that they are correlated with the criteria of the selection processes. This means that studies including adoption families appear, at the first glance, to be representative of a general population, and in fact to be on many socio-demographic characteristics. However they can still be restricted to those family characteristics that are more important and more proximally related with children's behavioral outcomes.

Stoolmiller (1999) further continued by arguing that the same range restriction of family environment could account for the high correlations of twins who have been adopted by different families. It was assumed that range restriction of family environment was not regarded as an inherent problem in twin designs. However this assumption may be premature as the restriction of family environment in the sample of those studies could still be operative through volunteer bias. That is families providing a generally supportive environment for their children to participate in the studies.

Stoolmiller (1999) concluded that, possible genetic influences in the development of antisocial and delinquent behavior are likely to operate. However the application of adoption and twin design in examining those issues, is likely to be limited by a restricted range of variability in child-rearing practices used by the families. This makes any associations of child-rearing practices with children's behavioral manifestations difficult to reveal.

Child-rearing Practices as Mediators of the Relationship between Social Disadvantage and Family Structural Variables and Juvenile Delinquency

However, as the experience of adverse family environment does not lead everyone to experience of poor psychosocial functioning, a within-person approach has been followed for the identification of pathways or mediational mechanisms that translate experience of family functioning into developmental problems in adolescence (Bolger & Patterson, 2001; Cicchetti & Rogosch, 1996; Kiriakidis, 2006; 2000). The mediational role of family functioning is more evident in the relation between social disadvantage and delinquency.

Several researchers (Barrera et al., 2002; Conger et al., 2002; Farmer & Farmer, 2001; Wadsworth & Compass, 2002) considered child-rearing practices as mediators of the relationship between social disadvantage and family structural variables and juvenile delinquency. Such an assumption is consistent with the ecological systems theory (Bronfenbrenner, 1979) that problematic behaviour of children and adolescents could not be examined outside the contexts they live in. Such an assumption has been advaced by Rutter (2005) that adverse environmental experiences are a critical factor of psychosocial poor adjustment. Rutter (2005) argued that the development of poor psychosocial functioning, including antisocial and delinquent behaviour, is actually mediated through several processes. He argued that adverse experience has a long-erm effect on psychosocial functioning through cognitive and/or affective working models, representation of the self, interpersonal interaction and several environmental and social experiences and interactions. Among the most important factors exerting a significant influence on the development of adolescent behaviour is the family environment they are living in. Neglect has been repeatedly related with: 1) antisocial and delinquent behaviour (Stouthamer-Loeber, Loeber, Homish, & Wie, 2001), 2) the development of psychological problems in the general population (Cohen, Brown, & Smailes, 2001), 3) dysfuctions in the neuroendocrine operation (Cicchetti & Rogosch, 2001), 4) the development of multiple dysfuctional behaviours in adolescence (McGee, Wolfe, & Olson, 2001), and 5) reduced resilience in the face of several stressors during adolescence and adulthood (McGloin & Widom, 2001).

Wilson (1980) reported that child-rearing practices and, especially parental supervision, in deprived inner city areas, exerted a buffering influence on juvenile delinquency by imposing strict rules limiting children's mobility, and examined the possible effects of parental supervision in variable settings representing different levels of social handicap. Overall she reports that juvenile delinquency was significantly higher in families employing less supervision practices and that, in areas with high delinquency rates, the effects of parental supervision were more important than the effects of social

handicap. She further argues that the effects of strict parenting in socially handicapped areas restrict children's involvement with delinquent peers, as their parents have expressed their disapproval towards offending behavior and those peers who express the behaviour. Those messages are internalized and turned into self-control, therefore inhibiting mixing with antisocial peers. It is evident that the author implied a process linking parental supervision with juvenile delinquent behaviour, where involvement with antisocial peers is a key mediating variable. However the explanation process remains at a narrative level and is not directly empirically tested.

The role of parental factors as correlates and predictors of delinquency in young people and adulthood were examined by Glueck and Glueck (1950 cited in Laub and Sampson, 1988) in Unraveling Juvenile Delinquency. Laub and Sampson (1988), provided an assessment of the longitudinal study and commented that the data base collected by Glueck and Glueck (1950 cited in Laub and Sampson, 1988) provided a unique source of information that could be very informative about potential correlates and predictors of delinquency. They noted that their work has been criticized on methodological, statistical and ideological grounds. They recognized that their ideological perspective of biological influences in delinquent behavior and their finding that mesomorphy was a predictor of delinquency resulted in their work being severely criticized, mainly from scholars working within the social criminological perspective, and while their statistical analysis was not optimal, they suggested that criticisms about their methodological design were overstated. In fact, Laub and Sampson (1988), believed that the methodological design of the Glueck and Glueck (1950) study, was very strong and they report that it involved the comparison of 500 delinquent males and 500 non-delinquents matched, case by case, on age, race/ethnicity, general intelligence and low-income residence all criminological variables thought to influence both delinquency and official reaction (p. 356). In addition, the samples were followed up when the participants were aged approximately 25 and 31 years old. Laub and Sampson (1988), concluded that [u]sing multiple sources of information, the Gluecks collected data on a variety of interesting and important indicators relevant to understanding the causes of serious, persistent delinquency. Indeed, the Gluecks' data, in all likelihood, are superior to many of the current longitudinal data sets in criminology (p. 376).

Recognizing the possibility that re-analysis of the data set could be informative of the possible correlates of delinquency and the identification of intervening family variables between structural factors and delinquent behavior. The authors re-examined the data of the study with the aim to examine closely, and with the use of multivariate data analysis techniques, the potential predictive role of family functioning on delinquent behavior. Erratic discipline by mother and father, poor maternal supervision, parental rejection of the boy and parental attachment were found to be significantly related to delinquency. Background factors such as paternal and maternal criminality, parental alcohol abuse, home overcrowding, economic dependence of the family on social welfare and absence of parents during childhood were related both to family functioning and delinquency. More interestingly, the effects of those background structural factors on delinquency were almost totally mediated by family functioning variables, and their effects on delinquency behavior were minimized when family functioning variables were taken into consideration. The only variable that continued to exert a direct effect, although considerably minimized, on delinquency was the number of family relocations. The results are even more supportive of the proposed mediating family processes, since the samples were matched on age, race/ethnicity, general intelligence and low - income residence. The role of family supervision and attachment as potent predictors of delinquency is supported. In addition the hypothesis of the authors that the effects of social structure on delinquency, in a considerable way are, mediated by parental rejection, harsh discipline and poor supervision are further supported as well. These hypotheses are supported by the data, even when other, generally static correlates of delinquency are held constant. The authors concluded, This model has considerable significance for future research in that it explains how key background factors influence delinquency. A concern with only direct effects conceals such relationships and leads to erroneous conclusions (p. 375).

Larzelere and Patterson (1990), who hypothesized that the effects of socio-economic status on delinquency are mediated by parental management, have reported similar results. They noted that socio-economic status was a central construct of most sociological theories of crime, although the theories differed in the way they conceptualized the impact of social class on delinquency. They reported that while Merton's (1957) anomie-strain theory proposed that greater frustration of lower social class juveniles led them to crime, Sutherland's (1947) differential association theory suggested that lower social class youths would probably be exposed to and influenced by criminal elements of society. Hirschi's (1969) social control theory held that lower social class youths were not sharing and

were not committed to the same familial, vocational and scholastic values common to middle class youths, thus making them more prone to delinquent behavior. The common element in all these theories, Larzelere and Patterson (1990) noted, was the direct effects of socio-economic status on delinquency, while these effects seemed to be rather weak and inconsistent, especially when the individual was the unit of analysis.

The authors further hypothesized that parental management would mediated any effects of socioeconomic class on delinquent behavior, as child-rearing practices have been associated with juvenile delinquency and have actually been potent predictors of delinquency. The hypothesis is derived from the coercion theory (Patterson, 1986). The coercion model emphasizes the central role of the family and peer group in providing the positive and negative contingencies that maintain the performance of both prosocial and deviant child behaviors (Larzelere and Patterson, 1990: 305). This was examined in the longitudinal Oregon Youth Study of 206 boys coming from schools within an area with the highest police arrest rate per capita. The study measured parental discipline and monitoring, with different methods, resulting into multiple indicators, in order to minimize any bias resulting from one measuring method. They concentrated on these two aspects of parental management as mediators of the effects of socio-economic disadvantage on delinquency. The boys in the study were followed up from the fourth to the seventh grade at school. The authors reported that parental management, a combination of measures of parental discipline and monitoring, fully accounted for the relation between socioeconomic status at fourth grade and self-reported delinquency at seventh grade, supporting the hypothesis of a mediational role of family child-rearing practices between the link of socio-economic disadvantage and delinquent behavior. The results, however, are informative of the possible role of parental management in early adolescent delinquency behavior, while socio-economic disadvantage could exert an independent influence on later adolescent delinquent behavior, as the authors noted.

The results of the study are in accord with McLoyd (1998), who stated the link between socio-economic disadvantage and children's socio-emotional functioning appears to be mediated partly by harsh, inconsistent parenting and elevated exposure to acute and chronic stressors (p. 185). Reviewing the literature on the effects of socio-economic disadvantage on the general socio-emotional functioning of children, McLoyd (1998) reported that there was enough evidence to support the hypothesis. That is, prolonged economic stress, combined with subsequent negative life events and chronic adversities, results in parental dysphoria. This is expressed in the form of anger, irritability and/or depression. This in turn increases the parents' tendency to use harsh, punitive, arbitrary and inconsistent ways of discipline for their children and ignore their dependency needs by withdrawal from their children. The author continues that such a pattern results in a range of, both externalizing and internalizing, socio-emotional problems of the children. These problems include anxiety, depression, temper tantrums, irritability, negativism and delinquency.

McLoyd (1998) provides complementary evidence of the role of parenting in the psychosocial development of children that comes from studies actually in search of protective factors that buffer possible effects of deprivation, disadvantage and chronic stressors on children's development and which instill in to them a sense of resilience. The author reviewed studies of children exposed to a high number of chronic adversities and negative events and tried to distinguish stress resilient children from those affected by stress. The factors that generally characterised resilient children were no separation of child and primary caregiver during infancy; positive parent-child relations during the preschool years; a strong sense of parenting efficacy by the primary caregivers; and parental use of reasoned, age-appropriate, consistent disciplinary practices (p. 197). The author stated that effective parenting or the existence of non-parental adults in the children's environment, providing positive role models or having the role of a mentor for the child, seemed to be factors that could buffer any negative, effects which adversities and hardships, could have on the psychosocial development of children faced with them.

Similar conclusions were reached by Yoshikawa (1994), by reviewing effects of family support on chronic delinquency. From several studies reviewed, he argued that there is evidence for a mediation role of family variables such as parental discipline and maternal affection between juvenile delinquency and socio-economic disadvantage. In any case he warned that the link between socio-economic disadvantage and delinquency is more evident when the former is measured as a community-wide characteristic, thus the link at the individual level of analysis appears to be prone to the ecological fallacy and any inferences for the individual should be made with extreme caution and only after the link is replicated with the two levels of analysis.

From the literature reviewed it could be argued that the role of the family in the prevention of delinquent behavioural manifestations by children and adolescents is an important one. It seems that effective parenting exerts an influence for the general socioemotional functioning of children and adolescents (Kiriakidis, 2007). From the theoretical studies point of view, the initiation of programmes teaching effective parenting to adolescents and young adults, especially those facing several adversities and in risk of delinquency themselves, could be helpful. They could be helpful in both reducing the risk of delinquency of their children and empower them. In that way they could enjoy a normative and satisfactory psychosocial development (Bitsani & Panagou, 2002).

Discussion

The protective role of parenting is generally supported and a supportive family environment could be suggested as a protective factor for juvenile delinquency. The evidence reviewed suggests that effective family functioning is a necessary although not sufficient factor for the normal socioemotional development and functioning of children and adolescents. This argument is in line with the assumption that delinquency is an international phenomenon. It could be attributed to several factors, postulated and actually identified, to be related to delinquency (Kiriakidis, 2007; 2008). From this point of view, any programmes of educational nature initiated at teaching properly and effective child rearing practises, targeted at youngsters at risk facing several adversities, shouldn't be viewed as the only solution to the problem of delinquency and there should be realistic expectations of their results. However, another reason is the fact that delinquency has been associated with several factors, most of which are mainly static and not readily amenable to change, or even if they are, their change relies to a considerable degree to substantial social and political change that is not always possible or desirable. For the professional who deals with problems of social instability in general and issues of delinquency and its prevention, the improvement of parenting skills in the community appears as an interesting, satisfactory cost-effective and efficient alternative, especially within the line of research suggesting that improvement in parenting skills is associated with improved general socioemotional functioning of children and adolescents and reduced rates of delinquency in particular.

Theoretical implications

The protective role of parenting is generally supported. The role of a supportive family environment could be suggested as a protective factor for juvenile delinquency. Bowlby (1977) argued that a secure attachment of the children to their primary caregiver results in children that are more able to explore and in that respect refine and employ their skills and talents in a constructive way. Belsky and Cassidy (1994), argued that the concept of attachment has been employed as a domain specific model as well as a broad general model that *depicts attachment security as foundational to a variety of features of development. Thus, sensitivity to attachment signals promotes attachment security, which fosters development in a wide variety of domains* (Belsky and Cassidy, 1994: 382-383). This argument reflects Rutter's (2005) proposition that multiple psychological outcomes might be related and be due to general underlying factors influencing multiple developmental problems. From this general perspective the results of the review seem not surprising. Children and adolescents who perceived their parents as less supportive seem not to be able to function adaptively and to regulate their lives in constructive ways, both for them and society. The results of the review show that inadequate parenting is related with many psychosocial problems including delinquency.

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